



**Platform
Cooperativism
Consortium**



INSTITUTE
FOR THE
COOPERATIVE
DIGITAL
ECONOMY

EVERY THING OLD IS NEW AGAIN

A Report by

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About the Institute for Digital Cooperative Economy (ICDE)

The Institute for the Cooperative Digital Economy is dedicated to studying the cooperative digital economy.

Where, when, and how work is done is changing. Advances in artificial intelligence, automation, and data processing continue to shift responsibilities from workers to digital systems. These disruptions are often unpredictable and still unfolding.

To navigate these challenges, we need research that imagines, builds, and explores new visions of a fairer future of work. One starting point is the platform co-op model, which carries the cooperative principles into the digital economy. Platform cooperativism addresses the root causes of systemic inequality and presents a near-term solution for the problems plaguing our economy and democracy.

The cooperative digital economy is an under-researched area in the fields of anthropology, political science, sociology, history, and economics. This emerging field is closely linked with labor studies and cooperative studies. In business schools, this field of study is situated in the areas of finance, entrepreneurship, and organizational studies. In law schools, the pertinent areas are governance and corporate structure.

Acknowledging these research gaps, it is the purpose of the Institute to provide prospective and existing platform co-ops with applied and theoretical knowledge, education, and policy analysis. We are committed to realizing new visions for a fairer future of work grounded in relevant research, driven by imaginative proposals. Initial research questions focus on distributed governance, scaling, marketing, and start-up funding. The ICDE makes this knowledge accessible to diverse audiences in innovative formats.

Through this research, the Institute builds a body of knowledge that advances platform ownership and democratic governance for workers and Internet users alike.

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This report was cooperatively designed by [Keir M-Barnett](#) and [Co-operative News](#)

1.

INTRODUCTION

Everything Old is New Again: Evaluating the Legal and Governance Structures of Shared-Services Platform Cooperatives

This is a study of two businesses that have built a cooperatively-governed technological infrastructure¹ for shared use among cooperatives in their network, using the resources contributed by those cooperatives. In the particular context of the platform economy, this includes the co-development and co-ownership of software applications for online matchmaking platforms by several (loosely) connected businesses. As such, these organizations bear a resemblance to time-tested supply and shared-services cooperatives in the agricultural and retail sectors, thereby showing how the past continues to offer lessons for contemporary businesses, including those developing ‘disruptive’ technologies. These businesses, ‘The Mobility Factory’ [TMF]², ‘Eva’,³ and others like them, will be referred to as shared-services platform cooperatives.

This study shows that shared-services platform cooperatives have begun to emerge from another set of cooperatives, known as platform cooperatives (Scholz, 2017, 2014), in a bid to share costs as well as to achieve scale. The methodology used is a comparative case study (Gerring, 2006, p. 27), with two cases in the urban mobility sector. The objective of these two exploratory case studies is to contribute to the development of theory regarding the formation of shared-services platform cooperatives by first, describing and comparing the legal and governance structures of two such ‘network organizations’ and second, investigating the rationale behind their choices of structure. This will allow the formulation of new hypotheses on the legal and governance structures employed by emergent shared-services platform cooperatives and may hold lessons for similar entities.

This study makes three contributions to the existing research on the platform economy. First, it provides an in-depth examination of the legal and governance structures of two novel businesses at the intersection of the platform, circular and solidarity economies, neither of which have previously been the subject of academic study. Moreover, it showcases the real-world instantiation of a hypothesized—but seldom seen—organizational structure in the platform economy. Second, drawing on the existing research on primary and secondary cooperatives, social franchising and property rights in common goods, it evaluates some of the opportunities and challenges that the use of these structures raise. Third, in an undertheorized field, it develops seven hypotheses regarding shared-services platform cooperatives, which may be tested as more shared-services platform cooperatives are formed.

INTRODUCTION

The second section will be devoted to expanding on the origins of the shared-services platform cooperative concept, followed by a brief explanation of the case study methodology in the third section. The fourth section will set out the two cases, focusing particularly on the legal and governance structure they have respectively opted for, before the fifth section compares the two cases and discusses the rationale for their choice of structure. This section will also elaborate on the two structures used by these cases, the European Cooperative Society (the *Societas Cooperativa Europaea*, SCE) and the social franchise system, as distinct forms of network organizations for owning and governing shared technological infrastructure. Based on the experience of existing SCEs and social franchises, the potential and risks of these structuring options will be drawn out for the benefit of future shared-services platform cooperatives. The sixth and final section will conclude by reflecting on seven hypotheses that emerge from this theory-building study. These hypotheses posit that the choice of a shared-services platform cooperative will turn on the capacity of a primary cooperative to internally develop intellectual property, the importance it places on a global/local brand identity and its need to own and license tangible assets for the success of its business model. The section will conclude with suggestions as to future research.



2.

SHARED-
SERVICES
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Shared-services platform cooperatives emerged from the recognition that cooperative and mutual alternatives to corporate entities would struggle to grow without a shared technological infrastructure. In the platform economy in particular, reliant as it is on network effects, platform cooperatives need a means to grow users on both sides of the market, without replicating the very practices they are meant to be an alternative to. This has necessitated efforts at creating federations and other network organizations, which has materialized in different ways in the case discussed below.

An early proponent of such cooperatives is Michel Bauwens, who refers to them as 'protocol cooperatives'. In *P2P Accounting for Planetary Survival*, a report co-authored with Alex Pazaitis, he defines protocol cooperatives as:

“global open source repositories of knowledge, code and design, that allow humanity to create infrastructures for the mutualization of the main provisioning systems (such as food, habitat, mobility), and that are governed by the various stakeholder involved, including the affected citizenry” (Bauwens and Pazaitis, 2019, p. 9).

Bauwens envisions protocol cooperatives as being a global organizational structure that enables such mutualization, with cities, businesses and individuals as members (Bauwens and Niaros, 2017, pp. 20, 53). He is of the view that the creation of such secondary cooperative entities,⁴ with municipal governments championing such efforts, will help prevent wasteful efforts at duplicating technology across cities and countries (p. 62). The crux of this argument is that it is not possible to build or overlay a digital 'commons' on a privatized infrastructure (Mejias, 2013). As a shared infrastructure,⁵ these protocols⁶ should be managed as common goods (Frischmann, 2014, pp. 3–4), with the cooperative structure providing the requisite governance rules and norms. The sense in which protocol is used is thus deliberately technologically neutral and instead, denotes a particular “management style” (Galloway, 2004, p. 3) that emanates from the technological infrastructure used. This is an acknowledgment of the fact that while protocols, such as blockchain and distributed ledger protocols, may be the technological infrastructure that is collectively built and used, other organizational technologies may complement or supplant them.⁷ Relatedly, by referring to protocols as a form of management, it brings to the fore the fact that it is humans, and not only machines, that are organized by a network. It also highlights that technology and organizations mutually shape each other (Luhmann, 2018, p. 302). Attempting to change protocols, from being centralized to being decentralized or distributed, is mirrored among human beings in how they organize and collaborate, such as through the use of federations, franchises, alliances, joint ventures and cooperatives. Conversely, efforts at creating a constellation of horizontal or distributed organizational structures are likely to lead to the adoption of technological infrastructures that reflect these principles, as seen in earlier community radio networks, local internet mesh networks, libre software communities and the contemporary interest in distributed ledgers (Baig et al., 2015; Barlow, 1988; Cammaerts,

2009; Selimi et al., 2018). In short, the protocol and the cooperative ‘mirror’ each other.⁸

Furthermore, in Bauwens’ view, protocol cooperatives should operate on a not-for-profit basis and be dedicated towards the benefit of its member institutions and individuals (Bauwens and Pazaitis, 2019, p. 24). There are, arguably, already cooperatives that match such a definition. One notable example is OCLC—a global library cooperative—that stewards WorldCat, the world’s largest library database, which was founded in Ohio in 1967. The OCLC cooperative is a firm comprised of 17,983 library-members in 123 countries, a distributed governance structure⁹ and a nonprofit corporation, OCLC, Inc., dedicated to the development of technological infrastructure for the benefit of its library-members.¹⁰ This structure has been carefully developed over time, with Arthur D. Little, Inc., a management consultancy firm, recommending the combination of a “tightly held, nonprofit corporation” and a “network cooperative” in 1978 (Arthur D. Little, 1978, p. 81; Hanawalt, 1998, p. 12); a structure that bears a strong resemblance to the cooperatives that are the focus of this study.

What is important to note from Bauwens’ description is that the use of the term ‘cooperative’ is intended to be evocative and generic rather than in reference to the cooperative legal entity form that exists in many countries. While this may be off-putting for those who have a narrower view of what a cooperative is, it is necessary to note that cooperative law academics such as Hagen Henry have also written that (registered) cooperatives may have to cooperate and form novel types of “private-public entities” with other cooperatives, civil society actors and public institutions, as a means to address the systemic challenges presented by the power of data-driven tech businesses (Henry, 2017, p. 125). Hence, and as shown in this study, shared-services platform cooperatives may manifest as different legal entities and network structures. Beyond the issue of organizational form, the technology that is to be cooperatively owned is left deliberately open-ended, so as to include a wide-variety of projects and initiatives, from client-server protocols (e.g. email transfer protocols such as SMTP) to distributed ledgers (e.g. forks of the EOS chain) to distributed computing technologies (e.g. Holochain)¹¹. Thus, any conceptualization of shared-services platform cooperatives has to be technologically agnostic.

Outside of protocol cooperatives, distributed cooperative organizations (DisCOs) are another form of organization that is closely associated with platform and open cooperativism in the blockchain space. Within the blockchain space, the idea of creating decentralized autonomous organizations (DAOs) gained a great degree of interest and notoriety, following the emergence of the Ethereum blockchain and The DAO attack respectively (Ishmaev, 2017, p. 668). There continues to be an interest in DAOs (Mannan, 2018), but as the DisCO Manifesto notes, the discourse largely centers on their technological affordances and their shortcomings rather than “the living human

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beings with bodies that need nourishment, sleep and affection” behind each node (Troncoso and Utratel, 2019, p. 21). DisCOs, based on the archetype of the Guerilla Media Collective,¹² foreground association over autonomy, federation over scale, value hidden forms of labor such as care work instead of automation, and prioritize society and the environment over profit (ibid, pp. 33-34). In that ambition, distributed ledger technologies can have a central role (Troncoso and Utratel, 2019, p. 35), even if they are works-in-progress.

At around the same time, Matthew Slater and Jem Bendell presented a different vision of protocols as organizational forms. They expressed skepticism of the value and viability of a cooperative alternative to platform companies such as Uber, given the company’s capacity to undercut competition and the cooperative simply swapping one intermediary for another. Instead, they argued that the use of ‘open protocols’¹³ would diminish the need for a platform intermediary altogether, as users in industries such as ride-hailing would be able to directly find each other and transact through the use of a “simple algorithm”, without any need for matchmaking (Slater, 2017). From the users’ perspective, this would have the advantage of reducing the cost of the ride-hailing service—as there would be no fees for intermediaries—and, at the same time, legal responsibility for transactions would be at the edges of the network, with transacting users. No single person or corporate entity would be in the position to own or commodify the protocol, with the role of the cooperative organization being limited to simply managing trust and social relations among stakeholders such as drivers (Bendell and Slater, 2017, p. 9). They referred to two projects, La’zooz and Arcade City as examples since the former was to be ostensibly owned by “nobody” (Schneider, 2015) and as the latter is peer-to-peer, with it allowing drivers to set their own rates and process their own payments and passengers to negotiate their own transport needs. Issues such as safety and governance are delegated to the drivers themselves, who form their own ‘guilds’ to address these issues (initially on Facebook!). While La’zooz now appears to be largely defunct, Arcade City is active in the US city of Austin and was temporarily active in Manila, the Philippines in 2017 and 2018 (Arcade City, 2019; David, 2017).

As will be seen, the shared-services platform cooperatives that have begun to emerge¹⁴ are not entirely in line with either Bauwens’ or Slater’s descriptions. In the cases that are the subject of this study the role of a core development team remains key for software updates. In Eva and Arcade City, the role of blockchain or distributed ledger protocols are far more limited than initially imagined.¹⁵ In other words, intermediation still exists and distributed, neutral protocols remain an aspiration. While these emergent shared-services platform cooperatives are dedicated towards building a shared technological infrastructure in multiple localities, access to the infrastructure and the body of knowledge, code and design that makes it possible are not entirely open. Typically, membership of a cooperative or being a cooperative is a necessary condition for using the software and contributing to its development. This is also a key difference between platform cooperatives and putative ‘open’ cooperatives which seek to blend digital

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commons with platform cooperatives by inter alia enabling 'copyfair' licensing (Bauwens and Kostakis, 2014). They are for-profit rather than not-for-profit,¹⁶ and while one of the cases is citizen-led (TMF), municipal governments and local authorities do not play a lead role in their governance or operations. To the contrary, in the case of Arcade City, the Philippines' transportation regulator has been quick to issue a cease-and-desist order against its activities, believing it to be an unaccredited transport network company (Yee, 2018) exploiting the vacuum left by Uber's exit from the country. This is not to say that municipality-backed, not-for-profit protocol cooperatives, open cooperatives or open protocols will not materialize or become more prominent in time,¹⁷ but an observation that there are a variety of approaches towards the same goal.

In short, the two shared-services platform cooperatives that are the subject of this study are concrete, real-world examples of how (platform) cooperatives can help serve each other's needs and scale. With respect to Eva and TMF, it is worth noting that they are also registered cooperatives, in Quebec and Belgium respectively, rather than simply cooperative governance structures.



3.

RESEARCH METHODOLOGY

3. Research Methodology

Platform cooperatives are, in general, few in number. Accurate statistics are difficult to find but the crowd-sourced and curated Internet of Ownership's platform co-op directory¹⁸ indicates that there are globally 306 platform cooperatives, cooperative-run platforms, shared platforms and support projects, as of August 2020.¹⁹ While there may be several cooperative businesses that are not accounted for in this directory, this figure includes initiatives that are now defunct and several which are formally not cooperatives. Shared-services platform cooperatives, as a variant of platform cooperative, are even fewer in number.

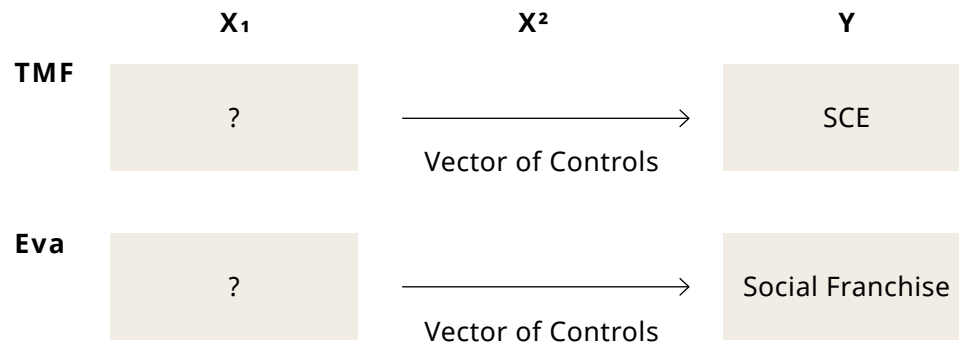
Given the relative novelty and rarity of shared-services platform cooperatives (small-N), the research method that was selected was that of a case study (Gerring, 2006, p. 57). The case study method is particularly appropriate for investigating the causal pathways (Gerring, 2006, p. 45) that led to the using of a particular legal and governance structure by these businesses. Out of the small (but growing) population of shared-services platform cooperatives, a purposive sample of two cooperatives was considered to be sufficiently rich in detail to shed light on other shared-services platform cooperatives (Emmel, 2013, pp. 36–38, 141) that are emerging.

The choice of these cases was determined by the fact that they are 'most-similar' cases (George and Bennett, 2007, p. 81; Gerring, 2006, p. 131), in that the two cooperatives are similar in several respects but differ on a few key variables. TMF and Eva are both engaged in the urban mobility sector but the former is involved in electric car-sharing and the latter is involved in ride-hailing. While they both can be considered part of the sharing, solidarity, collaborative and platform economies in general, the former is tied more closely to citizens' movements for renewable energy and the latter to efforts at building organizational alternatives for gig work. Both are interested in making urban mobility more sustainable, while also being for-profit. However, TMF is a secondary cooperative—a cooperative of cooperatives—while Eva is in the process of becoming a social franchisor with a network of social franchises. While these are both network organizations, it is unclear what independent cause(s) determined the choice of the respective legal and governance structures (Dul and Hak, 2012, pp. 178–179). It is this particular organizational difference that makes these two cases compelling subjects for a most-similar analysis, as their intensive study may unearth one—or a few—factors that led to this difference in structure.

To avoid spurious explanations or causes, this most-similar analysis will be complemented with process-tracing, which essentially requires the researcher

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to detail the process of arriving at a decision and consider alternative plausible causes for an outcome, so as to ascertain if one particular variable determined an outcome or not (George and Bennett, 2007, pp. 214–215). This conceptual model (Dul and Hak, 2012, p. 178; Gerring, 2006, pp. 131–132) may be illustrated as follows:



X₁ = the variable(s) of theoretical interest, X₂ = vector of controls, Y = the outcome of interest

FIGURE 1

Such an investigation is illuminating as it provides a contrast to how platform companies such as Uber are structured and the strategies they use to scale globally, as elaborated upon in the Discussion section below. At the same time and in different ways, it provides insight into (economic) cooperation among cooperatives and the role of central cooperative organizations, which “is one of the most important and, in some ways, one of the least well examined dimensions of co-operative experience” (Macpherson, 2015, p. 24).

As the objective of the study is to understand their choice of legal and governance structure, the first step in collecting data involved reading the texts published by the two cooperatives on the topic, ranging from their annual reports and accounts to their blogs, podcasts and conference presentations.²⁰ While some of these texts were promotional in nature, they were useful for tracing the evolution of the founders’ thoughts on how the cooperatives should be legally structured and governed. The second step involved verifying whether these descriptions of the legal and governance structures translated onto the constitutional documents of the cooperatives, namely their articles of incorporation and bylaws. This involved a search in the relevant business registers, the business’s website or contacting the cooperatives themselves, if it was difficult to obtain business documents from the first two sources.

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The third step consisted of identifying the person that was directly involved in establishing the legal and governance structure of these two cooperatives. This was done by discovering which persons were writing about or speaking about these issues through marketing publications or at conferences and noting their position in the cooperative itself. They were then contacted directly by email and/or social media. Lucie Evers (Co-founder, TMF and Chairman, Partago) and Dardan Isufi (Co-founder and Chief Operating Officer, Eva) agreed to be interviewed over Skype at a mutually convenient time. The interviews lasted between 45 minutes to 105 minutes in the Fall of 2019. While the interviews were semi-structured, each interview *inter alia* addressed the issues of:

- 1) Why the business was founded;
- 2) Why the business was formed as a cooperative;
- 3) What the factors were behind the governance structure of the cooperative;
- 4) What the legal and commercial difficulties of founding the cooperative were;
- 5) How these difficulties of founding the cooperative were surmounted;
- 6) How their software was developed;
- 7) What the future goals of the cooperative are, particularly in terms of growth.

Through an indirect snowball sampling method (Atkinson and Flint, 2011; Morgan, 2012), other members and directors of the two cooperatives who are knowledgeable about the same issues were identified from the information provided by the interviewees, who were subsequently contacted and interviewed in July-August 2020. These interviewees were Jan de Kock (Director, The Mobility Factory and Co-Founder, CoöperatieAuto), Mike Calomiris (driver-user member, Eva), Renaud Antoine (driver-user member, Eva) and Lukas Reichel (interim-CEO, The Mobility Factory and Co-Founder, SomMobilitat), all of whom consented to have their names used in the study. This was done for the purpose of having a more well-rounded insight of the operations and governance of these two shared-services platform cooperatives that would be otherwise publicly unavailable. The sampling ended when new information concerning the aforementioned legal and governance issues were no longer being uncovered (van Rijnsoever, 2017) and new participants were no longer reachable.

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The interviews were transcribed verbatim and a clean, timestamped version of the transcript (i.e. without interjections) was prepared. The researcher also followed up on any questions that arose from the case study analysis with the informants via email and social media. In combination with the earlier primary and secondary sources, these interviews provided sufficient detail about the contours of the cooperatives' legal and governance structure as well as the rationale for their design. The following section sets out the case studies, discussing The Mobility Factory and Eva.coop in turn.



4.

CASE STUDIES

4. Case Studies

I. The Mobility Factory (TMF)

The Mobility Factory SCE is a European Cooperative Society that operates in the electric car sharing sector, with its primary objective being to develop an electric car sharing platform for exclusive use by its cooperative members. It is a cooperative composed of other cooperatives and an association.

Understanding the origins and legal and governance structure of TMF requires an initial focus on one of its member-cooperatives, Partago cvba. Partago is an electric car sharing enterprise that was founded in Ghent, Belgium in 2015 and now operates across Belgium.²¹ The current CEO, Joachim Jacob, made a beta version of the app out of frustration about the lack of parking space in his own street in Ghent and the underuse of most cars (Schuurman and Herregodts, 2017, p. 8). Evers adds that Jacob was also irritated that the car sharing market incumbent in Belgium, Optimobil Vlaanderen NV d.b.a 'Cambio', was not investing in client relations, innovation or digitalization. Jacob met Evers at a living lab²² to test the app with potential citizen-users like Evers and while the user-led technological innovation was modest—adding a car reservation feature—the major pivot was to become a users' cooperative (Schuurman and Herregodts, 2017, pp. 8–9). Evers played an important role in this decision as she was a user who both believed in the merits of the idea and had previous experience as a cooperative entrepreneur. While there was initially some hesitation, the cooperative with limited liability (Coöperatieve vennootschap met beperkte aansprakelijkheid) was founded by five persons, Joachim Jacob, Rik Bellens, Lucie Evers, Patrick Claerhout and Davy De Clerq, with an authorized capital of €19,500.00, represented by 50 Class A shares and 28 Class B shares, with the nominal value of each share being €250.00. Evers, as a self-confessed, "governance hobbyist", was central to the governance structure of the cooperative as set out in its bylaws (statuten). The Class A shares are for user-members and a user is limited to a maximum of 20 shares, while Class B shares are for supporter-members and they are required to subscribe to a minimum of 21 shares (§6, Partago bylaws). Article 6 also prohibits a person from holding both classes of share simultaneously. These shares were fully paid-up by the five founders, with Jacob holding all of the Class B shares while the other founder-members subscribed to the 50 Class A shares amongst themselves.

As per its statutes, the purpose of Partago is to contribute to a sustainable society by providing mobility solutions. To this end, it inter alia collects financial resources,

stimulates the shared use of cars, develops technology and manages an electric car fleet—access to which is limited to its partner-users. A non-exhaustive list of its services include: the general maintenance, repair, rental and lease of passenger cars and light vans (<3.5 tons), the development of web portals, the management of computer facilities and computer consultancy activities, the offer and implementation of IT services, data processing, web hosting as well as the organization of conventions and trade shows (§3, Partago bylaws). This article of the statute also establishes the legal basis for Partago cvba to be a director of other companies or associations, so as to fulfill its cooperative purpose.

A relatively unique feature of Partago's business model is that users become members ('partners') as a requirement to access an electric car. §9 of its bylaws requires that future members of Partago are required to abide by the same share subscription requirements mentioned in §6 of the bylaws and in the case of user-members (i.e. Class A members) in particular, they must subscribe to a minimum number of shares, as per the 'fair use' policy of Partago. Under this policy, new users are required to subscribe to a minimum of two Class A shares (i.e. €500), with the nominal share value being withdrawable in full or in part upon the user-partner's exit from the cooperative after at least two years, depending on the financial circumstances of the cooperative (§13, Partago bylaws).²³

The Class A members have the right to nominate at least 3 of the directors of Partago's board and the candidate can be a member of Partago or an external person (§20, Partago bylaws). The board's size is capped at 9 members and board members are unpaid for their services. Board decisions are made by consensus, failing which, they are made by simple majority (§21, Partago bylaws). The General Assembly, composed of both Class A and Class B members, as the most powerful organ in the cooperative determines the general policy of the cooperative and can order an audit of the cooperative (§27-28, Partago bylaws). The bylaws of the cooperative allow members to participate in the General Assembly remotely, as electronic participation in meetings is permitted under Belgian law.²⁴ Assembly decisions are also arrived at by consensus, failing which a simple majority is required of both Class A and Class B votes.²⁵ Evers became the Chairman of Partago's board but the day-to-day management of the cooperative is carried out by the CEO, with the support of 5 staff members (3.7 FTE)—including the main developer of the app, Rik Bellens (CTO).

For a user to gain access to an electric car, in addition to acquiring two Class A shares in the cooperative, they must prepay or subscribe for the use of the car, the tariff being determined by the amount of time the car is used, the battery power consumed and a fixed reservation fee (Bonne et al., 2019, p. 87). User-members are required to download the Partago application to their smartphone, which enables them to find available, fully-charged cars on a map, make reservations and unlock car doors. While Partago began operations in Ghent, it has now spread to other municipalities in Belgium, namely

Beersel, Boechout, Brasschaat, Breendonk, Leuven, Lint, Mortsel and Wetteren, following the expression of interest and subscription of shares by small groups of citizens in these locations. Ghent has the vast majority of electric cars²⁶ (41 out of 54, as of December 2019), with several municipalities only having one car till date. Partago has attempted to expand its user base by offering both companies and municipalities the opportunity to join as members, on the basis that it could help them avoid having idle company cars, while also using a more eco-friendly, communitarian option. Another important source of income has been Partago's multi-year collaboration with WiseGRID, a project funded by the EU's Horizon 2020 program, which among other things requires Partago to test tools (i.e., WiseEVP) for planning and controlling the charging/discharging schedule of a fleet of electric vehicles as well as sharing (non-private) data with other components of the WiseGRID system (Komninos et al., 2017, pp. 108, 116; Nofuentes et al., 2018, pp. 25–26, 28–29).²⁷ One of the possibilities this opens up is the reversal of the usual flow of energy—from the car to local renewable energy grids and homes instead of just vice versa—as it moves around and offloads its excess electricity (Hu et al., 2016). In the long term, this creates an opportunity for an additional revenue stream for electric car sharing businesses that have their own set of 'batteries on wheels' (Zambrano et al., 2017, pp. 19–21, 58).²⁸

There are now some 600 members of Partago, approximately 70% of whom are user-members. According to Evers, the majority of these user-members only subscribe to the cooperative shares as they see it as a kind of car insurance contribution and (collective) investment in the ownership of an electric car as well as a form of personal saving. In other words, membership in a cooperative is less of a priority for them than access to the vehicle. This explains why, for instance, the bylaws do not require Assemblies to have a minimum quorum, except for decisions concerning the amendment of the bylaws itself and a change in cooperative purpose (§31-33). It prevents situations where decision-making reaches a standstill or meetings being disbanded due to lack of quorum, while at the same time preserving the mission of the cooperative in the event of a major control transaction such as a merger. Given that each member has one vote, irrespective of the amount that they have invested in the cooperative, they can have a meaningful role in shaping the policy and direction of the cooperative, including in the removal and election of directors. As there is a risk that user-members may prioritize obtaining the lowest price for the service over the financial health of the cooperative, Evers argues that her decision to include Class B shares is imperative for maintaining "equilibrium in extreme cases" (Interview, 04.10.2019, at 38:00). This "juggling" of the interests of the "consumer" and "capital", as Evers puts it (Lucie Evers [LE] Interview, 04.10.2019, at [43:30-44:00]), is also apparent in The Mobility Factory, a cooperative that was Evers' brainchild.²⁹

The creation of TMF was animated by four factors that became apparent as Partago grew: (1) the revenue stream of Partago was not able to sustain the costs of developing the software,³⁰ (2) the capacity to write code in Partago internally was limited, (3) the isolated development of software leads to wasteful duplication, which could be

avoided by pooling efforts and (4) there was an opportunity to scale the business in a cooperative way and reach a larger base of European users by partnering with cooperatives in other Member States. The first factor was motivated by the fact that an electric car sharing platform does not only require a digital map that allows users to find available cars, it requires a diversity of functions from enabling users to digitally unlock doors to management tools for the cooperative to invoicing APIs to availability in multiple languages. This contributed to the second factor, which prompted them in 2016 to collaborate with Som Mobilitat SCCL,³¹ a cooperative (Societat Cooperativa Catalana Limitada) that has its registered office in Mataró (Lukas Reichel [LR] Interview, 06.08.2020, at [11:00-11:30]). At the time, Som Mobilitat was primarily a community of software developers interested in sustainable but not specifically a car sharing business mobility (LR Interview, 06.08.2020, at [00:45-02:00]). Evers explains that it was a condition of their co-development (and co-ownership) of the software that Som Mobilitat focus on electric car sharing as it would only be through that practical business experience that their developers would be able to understand their work and write code (LE Interview, 04.10.2019, at [48:15-48:30]). Som Mobilitat became an electric car³² sharing cooperative, with 35 cars and some 1939 members as of August 2020 (LR Interview, 06.08.2020, at [26:30-27:15]), offering broadly similar services as Partago, but with certain distinct financing strategies.

Consumer co-ownership of businesses in the renewable energy sector is severely under-financed in Spain, with there being no dedicated state programs and subsidies for this purpose. The sums available through alternative sources—such as competition for subsidies from other cooperatives—yield sums that are unsustainable for the long-term growth of a business. For instance, Som Mobilitat received a grant of €4500 in 2017 (Diaz-Foncea and Bretos, 2019, p. 436). At the same time, to make Som Mobilitat widely accessible, the cooperative decided to keep the cost of membership low (LR Interview, 06.08.2020, at [06:30-06:45])—at €10, which is also withdrawable upon exit from the cooperative—and the tariffs to use the vehicles are significantly lower than with Partago. Aside from these sources, the cooperative also relies on obtaining financing for cars from donations, loans, reward crowdfunding campaigns, participatory securities that members can subscribe to (up to €40,000, variable interest rate of 3%) and sponsorship/prepayment for new vehicles. As of August 2020, Som Mobilitat has raised 400,000 EUR from their members alone (LR Interview, 06.08.2020, at [12:45-13:00]). In addition, in rural areas in particular, some municipalities contribute fixed sums for the installment of cars for use of the vehicles during the day, with individual users sharing in their use during the evenings and the weekends (LR Interview, 06.08.2020, at [13:30-14:00]).

As with Partago, Som Mobilitat also experienced operational losses in 2016 and 2017³³ and it is with these financial constraints that Partago and Som Mobilitat began co-developing the software initially developed by Partago for their respective businesses (LR Interview, 06.08.2020, at [16:00-16:30]). While the wages of the developers appeared on their respective balance sheets, the ownership of the software was determined by

‘time banking’. This refers to the system in which persons give and receive services in exchange for units that are denominated in time (e.g. 1 unit = 1 hour) (Seyfang, 2004, p. 62) rather than fiat currency. In this particular instance, as Evers explains, the units were used to indicate “symbolic shares in ownership” (Interview, 04.10.2019 at [50:15]) of the code base, reflecting each cooperative’s respective contribution to its development. However, while the cooperatives were able to mutually benefit from the use of the software, this process generated tension about the fair value of—and payment for—this intellectual property. Initially, there was discussion about making the software open source or using a license that would only allow cooperatives to use the software. However, Partago insisted that all of the work done to develop the software should be properly remunerated, even if it was sometime in the future (LR Interview, 06.08.2020, at [20:00-21:00]). Establishing a secondary cooperative and having this cooperative become the legal owner of the software would ensure that any cooperative interested in using the platform was adequately committed to its success, while their membership fees would go some way towards remunerating the accumulated hours of work in the timebank.

Thus, setting up TMF would not only enable operational scale and the sharing of costs, it also provides a governance structure to ameliorate tensions between collaborating cooperatives, who each have their own interests. As it became clear that electric car sharing cooperatives are not only actors within the mobility sector, but also have the potential to become important players in the renewable energy sector, Partago and Som Mobilitat were able to convince six citizens’ energy cooperatives and REScoop.eu (the European federation of renewable energy cooperatives) to form TMF (LE Interview, 04.10.2019 at [56:45-57:30]). These founder cooperatives were Courant d’Air cvba (from Belgium), Coöperatie LochemEnergie U.A., Coöperatie Cooperatieauto B.A., HET: coöperatie Hilversumse Energie Transitie U.A. (from the Netherlands), Energiegewinner eG and UrStrom—Bürgerenergiegenossenschaft Mainz eG (from Germany).

With the support of a Belgian organization that supports the formation of cooperatives and a lawyer familiar with cooperative law (LE Interview, 04.10.2019 at [1:25:30-1:26:00]), they formed a European Cooperative Society—a supranational limited liability legal entity form recognized across the EU/EEA³⁴—which has its registered office in Brussels. The Mobility Factory SCE’s main purpose is to design and develop software programs, provide computer consultancy, offer computer facility management, as well as design and maintain web-portals for its members, so that they can in turn offer sustainable mobility services in their local operations (§2, TMF Bylaws). It was registered on 28 December 2018 and according to Evers, it was not difficult to gather the fixed subscribed capital of €30,000 (§3(2), SCE Regulation, ‘R’). The pricing of the shares was determined by how feasible the cost would be for each prospective member, without requiring them to fundraise. Each of the founding cooperatives had to acquire shares in TMF that were nominally valued at €1000 per share and at the time of formation, the nine entities subscribed to 60 shares.

The influence of Partago is evident in TMF's bylaws, as the latter has an identical Class A and Class B system: Class A shares are reserved for cooperative members who wish to use the services and products of TMF and Class B shares are reserved for supporting investor members who can receive a dividend at the discretion of the board (i.e. 'the administrative organ') (§5, TMF Bylaws). Partago, Som Mobilitat and Courant d'Air subscribed to 14, 12 and 10 Class A shares respectively while the other cooperatives subscribed to four Class A shares each. Rescoop.eu was the sole subscriber to four Class B shares. Nowadays, for every car that a member installs in an area, a portion of that fee goes towards purchasing shares in TMF (Jan de Kock [JdK] Interview, 08.07.2020, at [34:30-35:00]).

The board is permitted to have between 4 and 9 unremunerated directors (it initially had 6 directors)³⁵ with a 6 year tenure. Up to one-fourth of the board can be nominated by members with Class B shares and the remainder are nominated by members with Class A shares (§16, TMF Bylaws). The Chairman of the board is elected from among the Class A-nominated directors and, in their absence, meetings are chaired by the most senior Class A-nominated director. Meetings can take place physically or electronically, in person or by proxy, but quorum is set at two-third of the board (except in the case of emergencies). Board decisions are taken by simple majority (§17, TMF Bylaws). As the body responsible for the day-to-day decision-making of TMF, the board faces a stiff challenge in making strategic decisions on a regular basis while also being mindful of the financial, cultural and ideological differences between the member-cooperatives. Reichel notes that their membership already includes cooperatives ranging from large renewable energy cooperatives to small, three-person cooperatives—and their views may differ on questions such as the inclusion of non-electric cars on the platform (LR Interview, 06.08.2020, at [33:30-35:15]). Ensuring meaningful, democratic participation from all the time-pressed member-cooperatives requires careful preparation prior to any votes, setting aside adequate time for discussion and the elaboration of proposals. The smooth, but representative, functioning of the board of TMF is critical as the board represents almost all of the members and as its strategic decisions are integral to the business of individual cooperatives (JdK Interview, 08.07.2020, at [24:45-25:15]). Given that the board members are distributed across the EU and that the COVID-19 pandemic has disrupted operations throughout 2020, these board meetings have increasingly been on Loomio (a group decision-making built by a worker cooperative in New Zealand). However, multiple interviewees were of the view that physical meetings are essential to complement online meetings to build rapport and a strong connection among this international group of cooperators (JdK Interview, 08.07.2020, at [29:45-30:45]; LR Interview, 06.08.2020, at [40:45-41:00]).

Typically, the General Assembly, composed of both Class A and Class B members, meets at least once a year and any other time as needed, to decide on inter alia the financial statements of the past financial year, the discharge of directors, issues relating to the audit of the cooperative and other issues on the Assembly's agenda (§23, 26,

TMF Bylaws). Each member has one vote, irrespective of the amount or class of shares they hold. To counteract the prioritization of investor interest at the expense of user-members, no more than 25% of the members present at the Assembly can hold class B shares (§25, TMF Bylaws). Decisions are arrived at by consensus, failing which by simple majority (§26, TMF Bylaws). One such decision that requires a simple majority vote is voluntary liquidation (§33, TMF Bylaws). For major decisions, such as a change of purpose or other amendments of the bylaws, the voting requirements are different. At least half of all the members must be present and, in the case of the former, the present members must also represent at least half of the capital of the cooperative and the decision to change purpose must receive at least four-fifth of the total votes, with the holders of Class B shares not comprising more than 25% of the voters present (§28, TMF Bylaws). In the case of the latter, the amendment must be passed by a two-third majority and the same rule about Class B shares applies (§27, TMF Bylaws). Along with the one-member, one-vote rule, another distinctive feature of TMF compared to capitalist businesses is that the amount of returns to holders of Class A shares is not determined by the number of Class A shares each member holds but their proportion of transactions with TMF (§31, TMF Bylaws).

An important distinction between the shares of TMF and Partago, however, is that the shares are not transferable to third parties. This is based on the idea that the members are expected to commit to TMF for the long-term, as indicated by the default requirement that members subscribe to TMF shares for at least five years unless the board decides otherwise (§11, TMF Bylaws). Even after that period has elapsed, voluntary withdrawal of all (or some) of the shares is dependent on the board determining that doing so will not jeopardize the financial position or existence of TMF. The repurchase of these shares are to be at nominal value for Class A shares and at current book value for Class B shares, but this payment can be made over the course of two years (§14, TMF Bylaws).

As previously mentioned, Partago and Som Mobilitat took the lead with programming but since the summer of 2020, the software developers who were formerly employed by Partago and Som Mobilitat are now directly employed by TMF. TMF has been developing a suite of products and services for its members, including a multilingual software application that allows users to find, access and unlock cars, a car-sharing management system that presents an overview of user and fleet data as well as other interfaces as needed (LR Interview, 06.08.2020, at [17:30-18:15]).³⁶ The software has now been sold by Partago and Som Mobilitat to TMF and the latter now owes a debt to the former two cooperatives according to the hours they spent on developing the software prior to the establishment of TMF. This will be paid back by the new shares that are issued by TMF, with one-third of the value of each share being used to pay down the debt (LR Interview, 06.08.2020, at [23:00-23:45]).

From the outset, it was intended that members have a say in the features that are included in this collectively-owned software. This was the key distinguishing feature for

some of the member-cooperatives as they previously worked with corporate providers who gave them less of an influence over the features of the software (JdK Interview, 08.07.2020, at [02:45-03:45]; LR Interview, 06.08.2020, at [48:30-49:15]). As Reichel explains, at first, everyone could propose a feature but this did not work well as everyone did not understand the costs and utility of including a new feature (LR Interview, 06.08.2020, at [35:30-36:00]). Instead, now, “everybody proposes needs, not features” (LR Interview, 06.08.2020, at [36:00-36:30]). This process involves identifying the problems that need to be solved, elaborating on the features that can address these problems and subsequently determining which features need to be prioritized. This software not only benefits the members themselves, but can also be licensed as a software-as-a-service to third parties (Partago cvba, 2019, p. 4). In this respect, as shown in Figure 2, TMF has the qualities of a supply or shared-services cooperative (USDA, 1998), in that it can generate cost-savings for a product (e.g. software) for its members owing to its ability to aggregate member contributions of labor and capital and can refund much of its net income back to its members based on their patronage (when such income is generated). It also creates a different psychological attitude towards the software, as members are not simply licensing a service but are paying towards something that is their own (LR Interview, 06.08.2020, at [49:00-49:30]). For member-cooperatives like CoöperatieAuto, the cooperative ownership of the application ensures that only the data of cooperatives is used in its development (JdK Interview, 08.07.2020, at [26:15-26:30]). This is strikingly different than if TMF, or indeed Partago or Som Mobilitat, were worker cooperatives as the financial returns (if any) of the cooperative do not go directly to workers like Lukas Reichel or TMF’s software developers. They are still employees, who can be dismissed by their employing cooperative board. While this requires a great degree of generosity on the part of these workers, in terms of their time and resources, according to Reichel, “people really like to cooperate with you because they see it is something that you do not personally benefit from” (LR Interview, 06.08.2020, at [01:01:30-01:01:45]).

In the months since being registered, two other cooperatives, Alternacoop and Conecta Movel (Spain) have joined TMF. However, TMF is confronted with the challenge of deciding how quickly they wish to grow—if they agree to the ambition of having 20,000 cars running on their platform in 5 years (LE Interview, 04.10.2019 at [52:30-52:45])—and attracting the resources to finance this growth, given that it is beyond what they are able to currently earn internally. It also remains to be seen whether the governance structure of TMF remains as it currently is or whether another tier of cooperatives—such as national ‘umbrella’ cooperatives—are added to represent local primary (electric) car-sharing cooperatives in TMF (JdK Interview, 08.07.2020, at [38:15-38:30]).

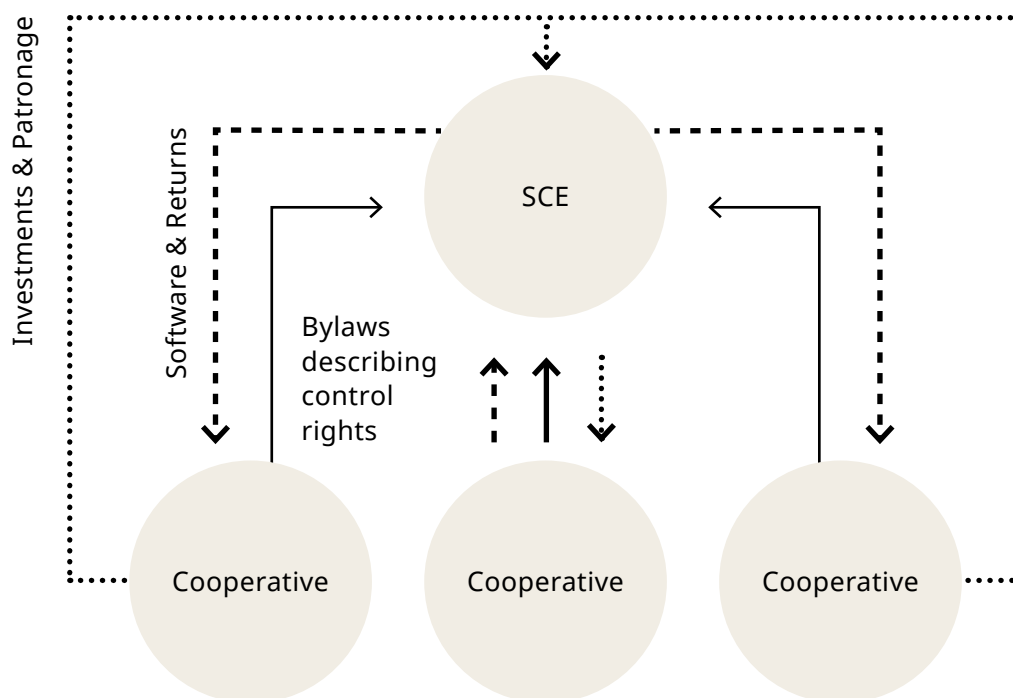


FIGURE 2

II. Eva

Developing an alternative to Uber has been a recurrent theme in the discourse on platform cooperatives for some time (Scholz and Schneider, 2015). Indeed, some of the most prominent examples of platform cooperatives have been taxi cooperatives (Borowiak and Ji, 2019, p. 168) that have developed their own digital platforms (e.g. Cotabo in Bologna, Taxiapp in London, Alpha Taxi in Paris and Green Taxi Cooperative in Denver) and de novo ride-hailing cooperatives (e.g. the aforementioned Arcade City in Austin). The latter group face particularly stiff challenges, not only due to the existence of incumbents such as Uber and Lyft in major cities who can price them out of the market, but also due to the complexities of complying with multi-tiered, fast-evolving local regulation concerning ride-hailing, as well as driver skepticism about what alternatives have to offer.³⁷

During the year that the idea of Eva first emerged—in 2017—the province of Quebec was involved in a heated debate about how the ride-hailing sector should be regulated. Following a decision by the provincial government to toughen the rules for ride-hailing

businesses (e.g., increasing the driver training requirement), Uber threatened to leave the province (Hawkins, 2017; Liptak, 2017). While Uber backtracked on those plans and continues to operate in Quebec at the time of writing, this prompted province-wide public discussions on the merits and drawbacks of ride-hailing as an industry. Among those were two students and friends at McGill University and Laval University, Dardan Isufi and Raphaël Gaudreault, who were of the view that while the organizational and management practices of capitalist ride-hailing companies like Uber were societally harmful, the technology they used—to show the arrival of a car, to keep track of invoices, to make online payments and so on—was not (Each For All, 2019). From the fall of 2017, they began brainstorming ideas about how to integrate this ride-hailing technology into an organizational structure that lowers the fees charged by ride-hailing intermediaries, maximizes the financial benefit of drivers and riders, gives drivers and riders a greater say in the operations of a ride-hailing business, protects their privacy and ensures that the business is rooted in the local community it serves, all the while allowing for the technology itself to be developed transnationally.

They settled on having a network of multi-stakeholder cooperatives, complemented by the use of the EOS protocol.³⁸ In their 2018 White Paper, Eva laid out an ambitious use case for blockchain technology, which involved the issuance of ‘utility’ tokens for voting purposes, access to Eva’s services and as a long-term store of value (p. 8, 19); a stable, non-transferable ‘commodity’ token to exchange value between members within the platform (ibid, p. 19) and smart contracts for each step of the ride-hailing service, from drivers receiving a request from a potential rider to the driver’s payment and mutual rating (ibid, pp. 32-33). The technology and brand was to be developed by a non-profit foundation in Canada (ibid, p. 17) while the ride-hailing business was to be initiated, run and promoted by cooperatives formed in other cities of Canada and the world (ibid, pp. 14-15), including in Ontario, Algiers, Pristina, Mexico City and Houston (ibid, p. 37). However, a number of external factors compelled Eva to reconsider how they go about achieving their objectives. The crackdown by securities regulators, such as the United States Securities and Exchange Commission, on crypto-tokens—including purported utility tokens—by determining them to be unregistered securities (Debler, 2018), meant that the proposed token sale (Eva White Paper, pp. 21-22) might have had undesirable consequences for their operations. This, in turn, meant that the proposal that utility token holders would be able to vote on the work that the foundation does, the community’s direction and the foundation’s board, had to be recast (ibid, p. 27). More prosaically, the extensive work involved in building a successful ride-hailing business in the province of Quebec, coupled with the need to determine the precise terms of the continuing relationship between the global entity in charge of technology development and local cooperatives interested in offering a ride-hailing service, has meant that international expansion has temporarily stalled.³⁹

Yet, in spite of these teething problems, Eva has managed to make the transition from being a business plan to becoming Uber’s main rival in Quebec within the space of less

than two years. After being granted permission to operate in Montreal, Quebec City and Gatineau in May 2019, Eva has gained over 20,000 passengers, 500 driver-user members (and a 1000 more in the authorization process) as well as some 50 supporter-members (Eva, 2019, p. 3; Jones, 2019). Eva's current appeal has been attributed to its local provenance and the fact that the income and taxes generated by the business are circulated within the Quebec economy (Renauld Antoine [RA] Interview, 28.07.2020, at [49:00-49:15]). Most importantly, there is a yawning gap between how Eva respects its driver-user members as individual humans compared to other ride-hailing companies. In the words of one of Eva's first driver-user members, Mike Calomiris, at "Eva, it's like, we are like family. With Uber, it's just a phone number, you don't know who you are talking to" (Mike Calomiris [MC] Interview, 11.07.2020, at [04:15-04:30]). Driver-user members feel they can speak to anyone in the cooperative very easily, from passengers interested in the cooperative model to other drivers to the management itself. In fact, one new driver-user member recalls that the first time they used the Eva app to hail a ride for themselves, they found that it was the COO himself (Dardan) driving the car, who spent the duration of the ride explaining how the Eva app works (RA Interview, 28.07.2020, at [03:00-03:15])!⁴⁰ These discussions are not necessarily limited to the daily issues involved in driving but also extend to planning and strategizing, such as road-mapping the new features needed for driver-users (RA Interview, 28.07.2020, at [18:00-18:30]). While the rollout of Eva in other cities has been slower than initially planned, cooperatives and local communities from Dhaka to Auckland to New York City have expressed an interest in becoming part of Eva's fledgling 'ecosystem' over the years. However, this growth has required some concessions in how Eva is legally structured, as well as how blockchain technology is used.

While Eva did form a non-profit foundation to develop its ride-hailing technology, on 22 March 2019 it registered a corporation with limited liability under the Canada Business Corporations Act, 1985, 'Eva Global Corp.',⁴¹ to take over this responsibility. As Isufi explains, the early iterations of the backend software and application was built "with nothing...basically out of [their] hands and computers" (Dardan Isufi [DI] Interview, 12.08.2019, at [03:45-04:15]). Yet, the operational growth of the platform and Eva's ability to hire crucial services—additional software developers, marketing experts and legal advisors—has been hampered by their chronic lack of financial resources. Till date, the major financial supporter of Eva has been the provincial government of Quebec and the Quebecois cooperatives, including the federation of credit unions, has provided some CAD\$ 200,000 in funding. This sum helped Eva get on its feet but in the long-run is insufficient for growth to other cities and countries (DI Interview, 12.08.2019, at [09:00-09:15]).

An issue that Isufi and his co-founder Raphaël Gaudreault encountered while meeting with financial cooperatives is the disconnect between the mindset of those managing 'old world' cooperatives, such as Desjardins, and those seeking to build platform cooperatives. As an anecdotal example, Isufi mentioned an early meeting with Desjardins

in which they were asked how many members Eva had before its launch and when Desjardins learned that Eva only had two members, Isufi and Gaudreault, they said they typically finance cooperatives with at least 5000 members (DI Interview, 12.08.2019, at [09:29-09:45]). This indicates a lack of understanding of the two-sided platform business model, which requires ex ante investment to attract user-members on both sides of the market rather than just ex post investment once the platform already has a healthy user base. Choosing a corporate entity has thereby allowed them to both approach a wider range of investors and also offer their personnel stock options as part of their compensation package (DI Interview, 12.08.2019, at [05:15-05:30]). As of 10 July 2019, the Quebec business register shows that the board of Eva Global Corp. is composed of Dardan Isufi and Raphaël Gaudreault as Co-Presidents, Merouane Benthameur as Vice-President and Robert Gaudreault as Secretary. Raphaël Gaudreault, Isufi and Benthameur are also the three shareholders of the corporation.

One of the objectives of Eva is to charge a lower transaction fee than competitors so that riders have to pay lower fees and drivers retain a larger share of the fare. As such, the maximum transaction fee that can be charged is 15%. The Global Corp. receives 5% of this, primarily for server maintenance and licensing fees for third-party APIs such as Google Maps (DI Interview, 12.08.2019, at [11:45-12:15]), while the local multi-stakeholder cooperative operating the ride-hailing service can choose to charge between 0%-10%. The first cooperative—a solidarity cooperative⁴²—was founded in Montreal on 14 December 2017 and is a test case for how this business model can expand elsewhere.

According to the bylaws (règlement de régie interne) of Coop de solidarité Eva, formed under Quebec's Cooperatives Act, 1982 (C-67.2), the cooperative's mission is to develop a new, sustainable model of mobility service that is based on the real (i.e. genuine) sharing economy (§1.2, Eva Bylaws). The by-laws also explain that the technology, trademarks and Eva brand are owned by Eva Global Corp. with the cooperative having the right to use the technology and brand name pursuant to the contractual terms agreed between the cooperative and the corporation (§1.3, Eva Bylaws).

As a multi-stakeholder cooperative, Eva has five categories of members: passenger-user members, driver-user members, worker members, individual supporter members and corporate supporter members (§1.4(h), Eva Bylaws). To become a member, it is necessary to acquire qualifying shares in the cooperative (§2.1, Eva Bylaws). While the supporter members buy-in to the cooperatives through monetary payments exclusively, the two categories of user-members are required to engage in a minimum number of transactions with the cooperative over the course of 12 months, with the buy-in amortized through their initial transactions with the cooperative (§§2.2(a)-(b), 3.3, Eva Bylaws). Prospective driver-user members are also required to be accredited by the cooperative, which includes passing a criminal background check, French language skills, having the appropriate drivers' license, insurance, an appropriately new vehicle

and completing an online training course (§3.7, Eva Bylaws) (MC Interview, 11.07.2020, at [07:30-08:30]; RA Interview, 28.07.2020, [07:00-08:15]). Worker members are obliged to additionally complete 480 hours of work for the cooperative as an 'auxiliary' (i.e. trial) worker-member before they can apply for admission to the cooperative (§§3.1, 3.6, Eva Bylaws). During this trial period, auxiliary workers are permitted to attend and speak at meetings of the cooperative but are not permitted to hold an official position within the cooperative or vote (§3.8, Eva Bylaws). While all five categories are required to pay CAD\$ 10 to Eva for a single qualifying share in the cooperative (section 41, Cooperatives Act, 1982), the supporter members are obliged to additionally acquire 4 and 49 non-voting, preferred shares in the cooperative respectively, also priced at CAD\$ 10 per preferred share. The preferred shares are entitled to receive an interest payment, unlike common cooperative shareholders, and are obliged to hold the share for at least three years (sections 46, 48, 226.5 Cooperatives Act, 1982). Both the common and preferred cooperative shares are non-transferable and the non-qualifying shares can only be redeemed upon the death, resignation or exclusion of the members or when the member redeems their shares (§2.4, Eva Bylaws). If driver-user, passenger-user and worker members do not carry out transactions with the cooperative, their voting rights may be suspended by the board (§3.5, Eva Bylaws). Conversely, as is the general rule under Quebec's cooperative law (section 226.8, Cooperatives Act, 1982), their patronage returns, if any, are determined by the proportion of the transactions with the cooperative (§7.2, Eva Bylaws) rather than the amount of cooperative shares held.⁴³

In terms of functionality, Eva aims to be unobtrusive in the transactions that take place between a driver and a rider. This explains their choice of using a permissioned 'sister chain' forked from the EOS protocol, as they wished to make use of a distributed protocol with very low latency so that the user experience is as seamless as possible. Eva's protocol therefore uses the same open-source EOS software as the main EOS ledger but has their own internal token and allows for Eva to create their own features as needed.⁴⁴ This means that Eva is, for the time being, operationally distinct from the main EOS ledger, although work is ongoing to enable 'inter-blockchain-communication' between the various chains of the EOS ecosystem (Aurora EOS, 2018). When Gaudreault and Isufi began working on Eva, EOS appeared to be the best compromise between the speed of a more centralized system and the privacy-preserving features of a blockchain.⁴⁵ To make the use of a blockchain application less daunting for ordinary users, Eva also decided to make many of the common features of a decentralized application ('DApp') invisible, such as not requiring the user to have a crypto-currency wallet. For a person to use Eva's platform, the user has to only provide their mobile phone number and create an Eva account, including bank account/credit card details, after which their private key is stored on their device which interacts with Eva's protocol. The ride-hailing transaction is then more-or-less identical to other ride-hailing businesses. A passenger-member logs onto the application, sees available Eva vehicles on a map, specifies an address they wish to travel to and a ride dispatch algorithm informs a driver-user member about the request. The passenger is then informed in advance of their fare, prior to being picked up by

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the driver-user member (MC Interview, 11.07.2020, at [19:30-19:45]). The map—Google Maps or Waze—directs a driver-user member towards the passenger (MC Interview, 11.07.2020, at [10:00-10:45]), who is then dropped off at their destination and the driver-user member is paid. The driver-user member—who has a version of the application with additional driving privileges—can see where the passenger is on a map, can call the passenger, estimate the fare from the ride and decide to accept/reject the request. Significantly, there is no public rating of the driver-user members or the passenger-user member – a fact that relieves driver-user members of the mental burden and emotional labor involved in worrying about their rating (RA Interview, 28.07.2020, at [37:45-38:30]).⁴⁶

Behind the scenes, there are additional key differences between Eva and its competitors. In terms of data, the personal data of all of the users, their ongoing transactions and their historic use of the platform are all hashed⁴⁷ and added to Eva's protocol, so as to give them a degree of anonymity/pseudonymity. The idea behind this is to allow for as much personally identifiable information to remain on the device of the user as possible without infringing legal provisions that require disclosure of certain personally identifiable information to public authorities. This underscores how blockchain and distributed ledger technologies are 'ambivalent' on both privacy and transparency, with its impact depending on the choices of its developers (Dierksmeier and Seele, 2020, p. 355). Crucially, unlike Uber, this data is not used by the cooperative to prompt drivers to go to distinct parts of the city at distinct periods of time (Attoh et al., 2019, pp. 1012–1013). Instead, the application is supposed to allow drivers themselves privileged access to the key performance indicators collected by the local Eva cooperative, such as their cancellation rate and the difference between estimated travel time and actual travel time (Jones, 2019). To comply with local regulations and deal with accidents, the cooperative has internal management software to identify the name of a driver in any given ride, the driver's account, the stage of their ride, historical rides, historical ride requests and whether they are online (DI Interview, 12.08.2019, at [31:15-31:45]). Passenger names are hashed and only identifiable by their alphanumeric IDs on the protocol but their accounts can be removed from the distributed ledger (DI Interview, 12.08.2019, at [32:15-32:30]). This privileged insight not only allows the cooperative to notify law enforcement authorities about illegal acts committed by members but also remove the accounts of members from their protocol if needed. According to the driver-user members interviewed, the fact that the data of the drivers and the passenger-user members are ostensibly more secure, engenders greater trust in Eva than in competitors that centralize the collection, storage and processing of personal data (MC Interview, 11.07.2020, at [05:30-06:00]; RA Interview, 28.07.2020, at [20:00-21:00]). In certain circumstances, third parties (e.g., a municipality) may undertake their own analysis of, say, ride-hailing traffic patterns, based on only anonymized data using a block explorer. As member-owned organizations, it is anticipated that personal or collective data that may be valuable to third parties can in the future be licensed on the basis of personal or collective agreement (Isufi, 2018). Most notably, Eva Global Corp., as distinct from the local solidarity cooperative, does not have access to the personally identifiable

information of any of the cooperative members, which again stands in marked contrast to businesses such as Uber. Thus, Eva dispels the notion that a 'trade-off' between privacy and access to labor markets (Jamil, 2020, p. 5) is an intrinsic feature of gig platforms.

While payments take place with ordinary credit cards in Canadian dollars, the platform internally uses a stable commodity token system as a means of accounting for the clearance of payments. As Gaudreault explains, when a driver is to be paid CAD\$ 20, this amount is charged to the rider's credit card, converted into commodity tokens of the same value (CAD\$ 1 = 1 token) and effectively escrowed in a smart contract until the completion of the ride, when these tokens are automatically credited to the driver's account, which she can then convert back into fiat currency (Jones, 2019). He estimates that in Quebec, drivers are earning 10-15% more than with their competitors and customers are paying roughly 5% less, given the lower transaction fee charged by Eva and the absence of surge pricing during hours of peak demand (*ibid*). This is echoed by Mike Calomiris, who estimates that he could earn a CAD\$ 100 with Eva in 6 or 7 trips while it would take 12 trips to earn the same amount with Uber (MC Interview, 11.07.2020, at [24:15-25:15]). In addition, to encourage more drivers to switch to using Eva during peak hours such as the morning (0600-1000 hours) and afternoon rush (1500-1900 hours), Eva recently introduced a pilot program for their most committed, "proven" driver-user members. During these four-hour periods driver-user members are guaranteed a minimum income of CAD\$ 15 per hour if they keep their Eva app on, which is only paid if the driver-user members themselves do not earn CAD\$15 or more per hour during this period (MC Interview, 11.07.2020, at [29:30-30:30]). These material advantages are complemented by the involvement of these stakeholders in the governance of the Eva cooperatives.

Section 80 of Quebec's Cooperatives Act, 1982, permits a cooperative board to have between 3 and 15 directors, with Eva presently having five directors.⁴⁸ To be eligible for directorship, a member must have fully paid-up their cooperative share, and each class of member is entitled to appoint a certain number of positions on the board. Passenger-user members, driver-user members and supporter-members are entitled to appoint 1 director each, while worker-members are entitled to appoint 2 directors (§5.3 Eva Bylaws, section 226.6, Cooperatives Act, 1982). Two of the directors share the duty of being co-presidents (i.e. chairpersons), one director is vice-president, one director is secretary and one director is the treasurer. The co-presidents are responsible for defining the overall strategy of cooperative over the short-, mid- and long-term (§6.1(d), Eva Bylaws). The tenure of these directors is for 3 years and the (re)appointment of directors is staggered after three years have elapsed from the founding of the cooperatives (§5.4.1, Eva Bylaws; section 84, Cooperatives Act, 1982). Elections of nominee directors only take place if there are a greater number of nominees for a position than there are vacancies (§5.5(b)(5), Eva Bylaws). The board meets as many times as required by the interests of the cooperative—physically or virtually—and quorum is met if the majority of the board (i.e. three of the five directors) are present (§5.6, Eva Bylaws; section 93, Cooperative Act, 1982).

The annual General Assembly of the cooperative (and any extraordinary general assemblies) brings together all the classes of members of the cooperative to decide upon, among other things, the appointment of auditors, the (re)appointment of directors and the distribution of the cooperative's surplus.⁴⁹ Notice for these assemblies are given through an in-app notification and through messages on social media (§4.1.1., Eva Bylaws). Given the potentially large number of user-members, it is possible for passenger-user and driver-user members to appoint delegates and alternate members to act as proxies for these assemblies. Pursuant to section 73 of the Cooperatives Act, 1982 and §4.4 of Eva's Bylaws, if the cooperative has a 100 or more user-members in multiple judicial districts, driver-user members and passenger-user members must each appoint a representative delegate at a specially convened meeting to appear on their behalf in these assemblies. These delegates—or their duly-appointed substitutes—will only have one vote. Supporter-members can appoint delegates in a similar manner (§4.5 of Eva's Bylaws). Should the cooperative decide, any and all of these meetings and assemblies can take place electronically (§4.6, Eva Bylaws), including the casting of votes. There is no requirement for a minimum number or percentage of registered members to be present for a meeting to have quorum at the General Assembly (section 64, Cooperatives Act, 1982; §4.7, Eva Bylaws).

Aside from these legally required meetings, the board of the cooperative regularly meet with the drivers in person—at pizza nights hosted at their office or over coffee at cafés—as well as through their social media channels (DI Interview, 12.08.2019, at [18:00-18:15], MC Interview, 11.07.2020, at [28:45-29:15]). These informal meetings are an occasion for the developers to receive feedback and for those present to collectively plan marketing strategies, such as offering 5-dollar coupons for rides and advertising to universities (MC Interview, 11.07.2020, at [21:45-22:00]). This driver-user member feedback is critical as it helps the management and 10-person software development team identify bugs in the application, ranging from fraudulent passengers who used fake/stolen credit cards to make payments to the map not accurately displaying the location and distance of the car to a passenger. Such bugs can have significant consequences for the cooperative as well as the drivers and passengers. For instance, incorrectly displaying the location of a car on a map can prolong the waiting/driving time. However, to its credit, Eva ironed out several of these bugs in subsequent software updates (Hudzilin, 2020) and when drivers picked up fraudulent passengers and had to cancel a trip, the business paid for the journey that was undertaken (MC Interview, 11.07.2020, at [16:15-16:45]). At the same time, some driver-user members feel valued when there is a transparent discussion about resolving a bug. In Renauld Antonine's words, at Eva "it is easy to send screenshots and there are like different [Telegram] channels where we can participate. The discussion is always open, which is cool! In the past, when I used to work for Uber, many times I wanted to give feedback about the app. They don't care! They say, thank you, but I don't know what happens next" (RA Interview, 28.07.2020, at [15:00-15:30], insertion mine). While not being a technical issue, the onset of the COVID-19 pandemic has also required Eva to act in the interests of its members who have been quarantined and unable to make

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trips. Instead of asking drivers to pay to buy a plastic protector, Eva has been offering its driver-user members these protectors, masks and sanitizers for free (MC Interview, 11.07.2020, at [45:30-46:15]).

Another significant difference between the earlier White Paper and the 2019 Business Plan of Eva is the prominent role that is now given to social franchising (Alon, 2014, p. 3) for the purposes of national and international expansion (see Figure 3). As with commercial franchises, a social franchisor permits franchisees⁵⁰ to use their trademark and operations processes (including software) for monetary consideration (Giudici et al., 2018, pp. 2, 12), but this is coupled with the requirement that the franchisee seek to solve a social problem. Asemota and Chahine define social franchising as a “process through which a social venture can scale up the coverage of its successfully proven social concept to its target population while maintaining the quality of its service delivery” (2017, p. 2737). The most prominent social franchises are in the healthcare sector (Alur and Schoormans, 2011; Bishai et al., 2015; Naatu and Alon, 2019, p. 758), but are also present in other industries such as ICT reuse (Zajko and Bradač Hojnik, 2018). It may be argued that consumer cooperative franchises can also be considered a form of social franchising as they require retail outlet franchisees to ascribe to cooperatives values and principles and provide their consumers access to cooperative membership (Co-operative Group Limited, 2019).

While Eva is still preparing its social franchise template and franchise operations manual with the support of a Canadian cooperative-oriented law firm, Isufi and Gaudreault both mention that an important term of the agreement will be the setting up of nodes by the franchisee, including acting as a block producer and as an API node, running a web server and using a ‘demultiplexer’ that provides business intelligence to the node operator based on live transactions on the protocol (e.g. failed rides) and an interface for managing the ride-hailing service within a certain territory (e.g. promotions, discounts). In addition, the social franchisee will also share the corporate email address of Eva and have their website developed by Eva (DI Interview, 12.08.2019, at [35:15-35:30]). Given that Eva Global Corp., is a for-profit franchisor and the potential franchisees could be both for-profit and not-for-profit entities dedicated to multi-stakeholder interests, it fits the social franchise investment model of social franchising (Crawford-Spencer and Cantatore, 2016, pp. 52–53). This reflects the fact that in contrast to other models of social franchising in which the franchisor is a not-for-profit entity, Eva Global Corp. is for-profit corporation but franchisees invest in the franchise system for not-for-profit purposes, including improving the working conditions of its driver-user members. At present, the cooperative in Montreal is the first ‘social franchisee’ in the network, with there being plans for social franchisees in Alberta, Quebec City, Saguenay and New York City in the near future (Duchaine, 2020; Hudzilin, 2020).

A franchise system has often been studied as a form of network organization (Tuunanen et al., 2011) and arguably, it can also be considered a federated structure when control

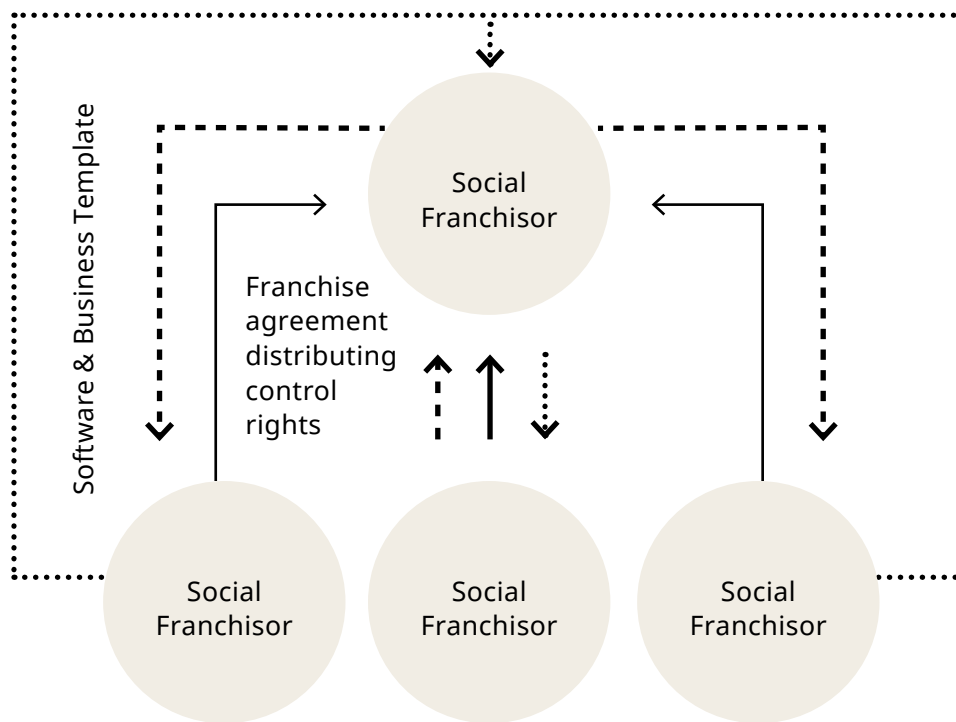


FIGURE 3:
Eva's Social Franchise Model

over key decisions is bi-directional. Typically, control in franchising agreements is top-down, rather than bottom-up. After all, it is the franchisor that gets to decide whether to allow another business to be a franchisee and often retains strategic decision-making rights regarding the franchise (Mumdžiev and Windsperger, 2011, p. 451). However, as Mumdžiev and Windsperger show in the context of German and Austrian commercial franchises, franchise agreements allocate residual decision-making rights (i.e., the authority to make decisions that are not mentioned in a contract or cannot be specified in a contract) to franchisees depending on the importance of intangible, difficult-to-transfer local-market knowledge, relative to the importance of the intangible assets of the franchisor. In other words, assets that are viewed as being amenable to contracting remain within the decision-making purview of the franchisor, while other decisions such as the introduction of a new service for a local market or recruitment, are left to the franchisee (Mumdžiev and Windsperger, 2011, pp. 456, 458–459; Rajan and Zingales, 1998, p. 387). Given the extent to which the ride-hailing business relies on local market knowledge, the particularities of urban mobility in different countries (e.g., the use of cash, different modes of transport) and the importance of onboarding new users, it would be unsurprising if Eva's 'model' social franchise agreement delegates extensive

operational and strategic decision-making rights to local cooperatives. In doing so, Eva Global Corp. is gradually taking on the functions of a shared-services platform cooperative, serving the technological needs of its franchisees. Existing examples of social franchises indicate that such arrangements foster horizontal learning, as the franchisor coordinates knowledge sharing among franchisees, particularly concerning innovative practices (Giudici et al., 2018, p. 11). Eventually, it may be the case that Eva Global Corp. itself becomes owned by its franchisees and their members, as originally envisioned in the Eva White Paper. The foregrounding of the 'nodes' in the social franchise network, the building of relations between them and the gradual self-effacement of the franchisor could thereby enable a shift towards a distributed (rather than simply a decentralized) network; as an organization and as a protocol.

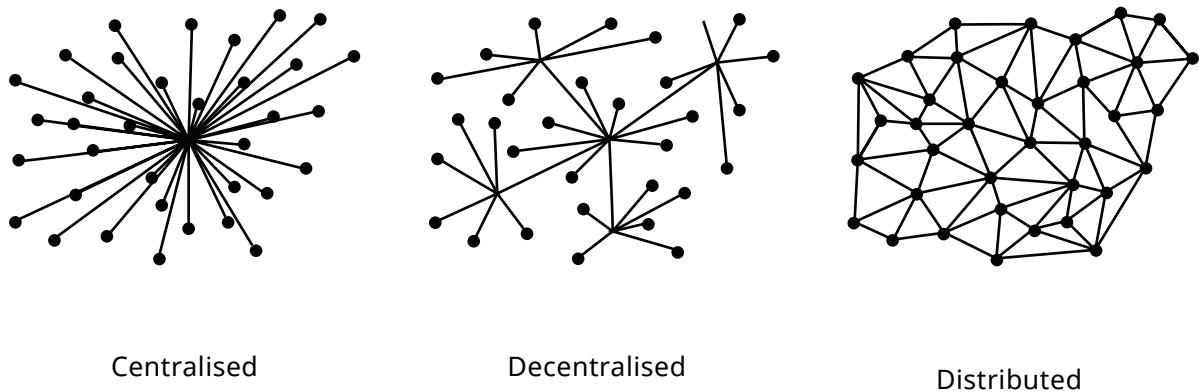


FIGURE 4:
1983, 17 June 2007, CC Attribution-Share Alike 3.0 Unported,
based on (Baran, 1962, p. 4)

The background features a vibrant, abstract design. A diagonal band of bright yellow, textured with a fine halftone dot pattern, runs from the bottom left towards the top right. This band is bordered by a deep magenta or fuchsia color, which also has a halftone texture. The remaining areas are a solid, bright orange-red. The edges of the colored sections are irregular and jagged, resembling torn paper or a layered effect.

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The two cases set out above comprise different sectors of the urban mobility industry, electric car sharing and ride-hailing respectively, and thus have differing business models and serve varying member interests. Yet, as participants in the wider platform economy, they are both reliant on the development of a high-quality smartphone application for their members and attracting a critical mass of users. As with other early-stage platform startups, TMF, its members and the nascent Eva ecosystem are cash burning machines (Munn, 2019); traversing ‘the valley of death’ by rapidly spending their initial seed capital to develop their application(s) and to acquire users in the hopes that they can generate sufficient revenue to be self-sufficient before their investment runs dry. These cases show that platform cooperatives, in their various forms, are not immune to the imperatives that drive ‘planetary expansion’, even if they are not exclusively beholden to the interests of investors (Munn, 2019, pp. 193, 197). The desire to scale globally does have an overlap with the objective of platform companies to increase profit margins—especially in industries which require continual investment in tangible assets—as they too wish to deliver financial returns to their members, even if this is at nominal value or is capped. Sharing costs and simultaneously reaching a broader geographic market can help prove the viability of their business models and, as such, networking with similar businesses through a network organizational structure is a rational economic choice, even if it is not legally obligatory.⁵¹ However, the choice of the SCE and the social franchise—both relatively novel legal and governance structures—raise fresh challenges and possibilities.

TMF is one of only a handful of SCEs that have been formed in the EU/EEA since the SCE Regulation came into force on 18 August 2006 (article 80, SCE R). Yet, there are persuasive reasons why the SCE is an appropriate pan-European structure. The SCE may be created for an object that involves the satisfaction of its members’ needs and/or the development of their economic and social activities, including supplying them with goods or services (article 1(3), SCE R). As a legal entity, the SCE is treated in every state of the EU/EEA as if it were a cooperative registered under its national law (article 9, SCE R). This is significant as the SCE Regulation expressly authorizes the SCE bylaws to have certain features that may prevail over mandatory rules of national cooperative law (Cooperatives Europe et al., 2010, p. 39). Examples that are particularly material for cooperative governance include the possibility of extending participation to non-members (article 1(4), SCE R), issuing non-voting securities and debentures other than cooperative shares to non-members (article 64(1), SCE R), allowing proxies for meetings (article 58(3), SCE R), permitting electronic voting (article 58(4), SCE R), setting custom quorum and voting majority requirements (article 61(3), SCE R), offering one-tier or two-tier boards (article 36(b), 37(5), 42(4), SCE R), having longer board tenures (article 45(1), SCE R) and

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establishing alternative share redemption schedules for exiting members (article 16(3), SCE R). In short, the SCE may take on characteristics that are different from cooperatives formed under national law and allow a degree of flexibility not permitted by domestic cooperative law. It may be formed *de novo* by five or more natural persons, two or more legal persons resident in at least two different Member States (or a combination thereof), through a merger of cooperatives at least two of which are registered in different Member States and through a conversion of a cooperative that has had an establishment governed by the law of another Member State for at least two years (article 2(1), SCE R). Once established, it is possible to transfer the registered office of a SCE to another Member State without winding up or creating another legal entity (article 7(1), SCE R). The SCE Regulation also provides the scaffolding for a transnational cooperative governance system, by setting out the functions of a one-tier or two-tier board (articles 37, 39, 42, SCE R), the General Assembly (articles 60-61, SCE R), their inter-relationship (e.g. articles 39(2), 40 42(3), 54(2) SCE R) the voting powers of members (article 59, SCE R) and the rights of exit of minority members (e.g. article 15(2), SCE R).

The SCE is undoubtedly a landmark piece of legislation, resulting from the ardent effort of several persons in the cooperative movement since the 1960s (Chomel, 2004, p. 23), but there continues to be a “lack of cognitive awareness” about the SCE and the Regulation itself has been unable to overcome the difficulties that arise due to differences between national cooperative legislation (Cooperatives Europe et al., 2010, pp. 147–148). While the SCE Regulation supplies certain provisions that can supplant national rules, by and large in the absence of a uniform European cooperative law, the gaps in the SCE Regulation are filled by the national laws of the jurisdiction where the SCE is registered. This interplay of national and sub-national laws and the SCE Regulation has meant that the formation of a SCE involves a level of complexity and cost that is beyond the means of many cooperatives (Cooperatives Europe et al., 2010, p. 78; Ibáñez, 2011, p. 40). At the same time, it offers the opportunity for regulatory arbitrage that is beneficial to the cooperative, as interested cooperators can have their pick of EU/EEA jurisdictions where they can register a SCE, including those most amenable to their objectives. This may be motivated by tax benefits offered to cooperatives in a particular jurisdiction (Galle, 2006, p. 259) but it could also be for cooperative governance reasons. For instance, cooperatives in two different Member States, which do not regulate or permit cooperatives to have investor-members, could form a SCE in a third Member State which does, for the purpose of attracting external investment for their shared product/service (article 2(1)(third indent), SCE R). Alternatively, if it is felt that an existing primary cooperative will need to include investor-members itself, but it is not possible to do so under a national cooperative law regime, the cooperative—with its members’ support—could convert into a SCE, subject to articles 2(1)(fifth indent) and 35, SCE R. Subsequently, it could transfer its registered office and headquarters to a Member State which permits investor-members pursuant to article 7, SCE R, continuing its operations in its original Member State as a secondary establishment.⁵² While the relatively high minimum capital requirements of the SCE and administrative costs have been presented as the main

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reason why such regulatory arbitrage has not happened (Cooperatives Europe et al., 2010, pp. 148–149; European Commission, 2012, para. 4.4), cases such as TMF indicate that it is not an insurmountable obstacle. It remains to be seen whether other emergent shared-services platform cooperatives in the EU, such as Coop Cycle, will eventually use the SCE form or not.

Eva's nascent social franchise system presents another form of network organization that provides shared-services to its cooperative social franchisees. This is distinct from the vertical integration inherent in the formation of a secondary cooperative such as TMF as, at present, the relationship between Eva Global Corp. and its social franchisee(s) are governed by vertical, contractual restraints rather than ownership (Callaci, 2020, p. 7). Isufi hopes that Eva's ecosystem will come to resemble the governance structure of nonprofit organizations such as Amnesty International, which are reliant on action taken by local groups while the global entity focuses on cross-cutting issues such as research (DI Interview, 12.08.2019 at [19:15-19:45]). Social franchising is an attractive arrangement for materializing such a vision, as it allows a social impact-driven business model to be adapted to local conditions and for decision-making to be distributed to franchisees, while remaining within a shared mission-driven identity. In short, social franchising has the capacity to cultivate a stronger sense of belonging among members to the ride-sharing business.

This is also a strategic move as it is the social franchisee that becomes responsible for market research and development, promotion, financing and regulatory compliance, which is markedly different than in the case of platform companies such as Uber, where the parent company effectively remains responsible for these functions when operating in different countries through wholly-owned subsidiaries.⁵³ This can considerably reduce costs for the franchisor. An influential stream of research on social franchising has favored the idea that resource scarcity explains the choice of franchising over ownership but the case of Eva indicates that the normative and social objectives of decentralization and localization can also be important determining factors (Beckmann and Zeyen, 2013, p. 506; Naatu and Alon, 2019, p. 754). Franchising allows the social franchisor to focus on developing the application and the backend software (e.g. for Eva, Ana, the operations management software and Lixia, the internal management software) and supporting new and existing franchisees. It can also turn its attention to related markets, such as food delivery, a sector that Eva has already begun exploring during the COVID-19 pandemic (Hudzilin, 2020). The franchisee will have access to a proven social impact model and a well-tested application while also being highly incentivized to succeed, as it is their resources invested in the business. At the same time, as Eva has expressed no intention of charging a franchisee fee or ongoing royalties—beyond the aforementioned share of every transaction fee—some of the main costs in being a social franchisee are reduced (Giudici et al., 2018, p. 13).

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That being said, the earlier experience of social ventures like Aspire—a failed British social franchise that had the mission to train homeless persons in basic business literacy—underscores the importance of being cautious in replicating a social impact model in a different socio-economic context and in franchisee selection. If the franchisee does not have the expected market knowledge or the ability to act as a steward of the franchise, the entire venture could be in jeopardy (Naatu and Alon, 2019, pp. 745, 756; Tracey and Jarvis, 2007, p. 678). It may also require the social franchising process to be slower than initially planned. Conversely, social franchisors such as Eva Global Corp. also need to implement a plan for how its own governance will be democratized and not captured by investor interests. This is an objective that Eva mentions in their initial white paper and is an ongoing concern for the team, but from interviews and correspondence with the COO, this currently appears to be a low priority. The early stages of Impact Hub may offer a salutary lesson here, as the democratic ethos core to its business was diminished by the fact that the founder of the business was its sole shareholder (Giudici et al., 2018). In turn, broad-based ownership may help preserve Eva Global Corp.'s stated social mission for the long-term.

From a property rights perspective, both the SCE and social franchising are vulnerable to adverse selection and free-riding problems that may negatively affect their financing and governance. A cooperative may seek to become a member or a franchisee simply to obtain the best possible product—access to the code base of the software and the brand—for the lowest possible contribution of labor or financial resources. If a cooperative notes that future member-cooperatives or franchisees will earn the same returns and decision-making rights as them, a disincentive may be created for present investment or an incentive to exploit the existing contributions of others (Cook and Iliopoulos, 2000, p. 336). For a social franchise, distance between a franchisee and a franchisor may create a temptation to free-ride on the trademark of the franchisor (Hadfield, 1990, p. 949) as the goal of attracting user-members may, for instance, lead to compromises in the quality of the service provided by the franchisee or its user-members. For a SCE in particular, there may also be horizon problems. If a member-cooperative is of the view that their residual claim on net income generated by the co-developed software is for a shorter period than the productive life of the software, the cooperative may not wish to make a long-term, substantial investment. These problems could lead to intergenerational conflict and financial and reputational risks for the SCE or the franchisor. In the case of agricultural cooperatives that have confronted these problems, recommendations have included raising membership requirements, adding supplementary fees for new members, requiring obligatory patronage requirements and adjusting cooperative share redemption periods (Cook and Iliopoulos, 2000, p. 346; Giannakas et al., 2016, pp. 373–374, 385). For social franchising in particular, a franchisor could engage in active monitoring and evaluation of franchisees, handing down financial sanctions to intransigent franchisees. The added benefit of the technological nature of shared-services platform cooperatives is that excluded members or franchisees may also be deprived of updates to the software, rendering it un-operational.

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Moreover, an internal free-rider problem arises from the sharing of ‘common property’ by the cooperatives via a secondary entity, which assumes that consumption of the property is non-excludable and rivalrous. However, when that property in question is software used for a (business) platform, this assumption does not hold as such a property is anti-rival in nature—the more the good is consumed, the more utility it has for each cooperative. Indeed, a degree of free-riding may be tolerable if it leads to greater numbers using the software (Weber, 2004, p. 154). Awareness of this should incentivize cooperatives to help expand the network of member-cooperatives/franchisees rather than retain the status quo.

Given the particular requirements of shared-services platform cooperatives, it may be useful for them to keep in mind Baig et al.’s framework for governing shared technological infrastructure. Drawing on the experience of guifi.net—a successful international community telecommunications network—the authors recommend seven governance tools for a decentralized network to function well. These tools are based on Elinor Ostrom’s principles for governing common-pool resources: (1) effective and varied means of communication with network participants, (2) a license (i.e., setting terms early of who can participate in the protocol/network), (3) monitoring (i.e., ensuring that it exists), (4), a conflict resolution system (i.e., ensuring that it exists), (5) an expense declaration system (i.e., accounting for the contributions made by members), (6) a collaboration agreement (i.e., terms by which for-profit uses can be made of resources) and (7) an economic compensation system (i.e., balancing the contributions made with the resources used by for-profit participants) (Baig et al., 2015, pp. 152–153, 163).

This evaluation of the legal and governance structures of the two shared-services platform cooperatives in the urban transport industry allows for a closer look at the similarities and differences between the two cases, for the purpose of understanding the rationale for, and the factors behind, these businesses choosing their respective legal and governance structure. This comparison is summarized in Table 1.

As the Table indicates, three differences are the ownership of the vehicles used in the respective transport businesses, the importance of a single global brand for the primary entities and the existence of a supranational legal entity form (e.g. the SCE) in the jurisdictions where the business operates.

The need for TMF members to acquire their own electric vehicles for their car sharing business—and in some cases also install some of their own charging ports—entails a costly investment in tangible assets that neither Eva Global Corp. nor its franchisees have to incur. This may be attributable to the difference in business model between TMF members, such as Partago, and Eva’s franchisees. Partago, for instance, is not strictly a platform, in the economic sense of the term, as its business model is not centered on multi-sided matchmaking. Partago owns the cars available through their application.

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	Solidarity	For-Profit	Ownership of IP	Ownership of Vehicles	Professional Support	Internal Tech. Expertise	Importance of Single Global Brand	Supranational Legal Entity Form
The Mobility Factory	Y	Y	Y	Y	Y	Y	N	Y
Eva Global Corp.	Y	Y	N	Y	Y	Y	Y	N

Table 1:
Similarities and Differences between TMF and Eva. (Y = Yes, N = No)

Although it would appear that the cars are co-owned by local communities, they are in fact licensed to user-members. This contrasts with the archetypical platform business model in which the intermediary does not own the tangible assets that are subject to intermediation and generates revenue by efficiently matching users to individual suppliers (e.g. of electric cars). While it is common for a franchise agreement to require a franchisee to make substantial tangible investments, including the acquisition of raw materials and other movable property to be used for the franchisees' core business transaction, this may be less common if the franchisee is primarily a multi-sided marketplace. Eva hues more closely to this description, with the major tangible cost required of nodes is the installation of dedicated servers and the maintenance of an Eva node. Moreover, the use of the SCE can be simply explained by the fact that it is an entity form that can be created by cooperatives registered in EU/EEA Member States, but not Quebecois cooperatives with no presence in the EU/EEA. This, however, does not provide insight into why more cooperatives in Europe do not make use of the SCE. Relatedly, while members of secondary cooperatives can continue to use their own local brand identity, franchisees generally—but not always (e.g., in a fractional franchise)—are expected to operate under a global brand name.

Both Eva and TMF own their software but there are fundamental differences in how it is made available to their franchisees and members respectively. In the case of TMF, the process of IP development was from the outset a collaborative activity and one of the motivating factors behind the secondary cooperative's existence is to create a vehicle for 'co-owning' the IP and resolving ownership

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disputes between co-owners. This co-ownership is reflected in the fact that TMF members like Partago can license the software to third parties. In contrast, Eva Global Corp. is the sole owner of the IP and while social franchisees may be granted a broad license, they will still have restrictions on what they can do with the software so as not to dilute or despoil the Eva brand. (However, ultimately, the social franchisees may essentially come to 'co-own' the IP if they eventually become the shareholders of Eva Global Corp.)

The comparative analysis above allows for seven hypotheses to be formulated about the choice of legal and governance structures by shared-services platform cooperatives:

H1 (Rationale)

Shared-services platform cooperatives are created to mutualize shared resources, so as to reduce costs for member-cooperatives and to reach new geographic markets.

H2 (IP Development) -

H2a:

A social franchise agreement to license operations processes and software to other cooperatives will be used if a business's internal capacity to develop a market-ready software is high.

H2b:

A secondary cooperative of cooperatives will be formed if the member-cooperatives have a low internal capacity to individually develop market-ready software.

H3 (Brand Identity) -

H3a:

A social franchise agreement to license operations processes and software to other cooperatives will be used if a uniform global brand identity is more important to a local business than a local brand identity.

5. DISCUSSION

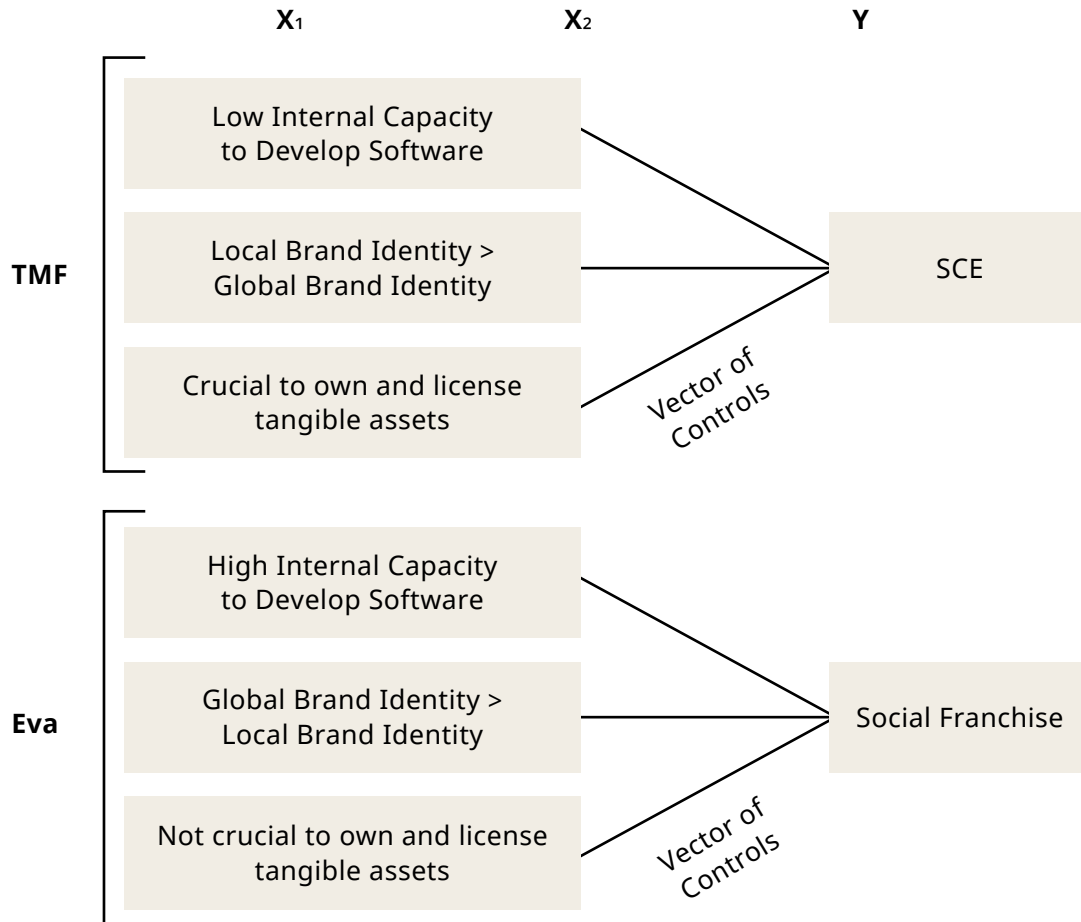


FIGURE 5

X1 = the variable(s) of theoretical interest, X2 = vector of controls,
Y = the outcome of interest

H3b:

Secondary cooperative of cooperatives will be formed if the local brand identity of member-cooperatives is more important than a global brand identity.

H4 (Tangible Asset Ownership and Licensing) -

H4a: A social franchise agreement to license operations processes and software to other cooperatives will be used if the ownership and licensing of tangible assets, such as a vehicle, is not crucial for the business model of the cooperatives.

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H4b: A secondary cooperative of cooperatives will be formed if the ownership and licensing of tangible assets, such as a vehicle, is crucial for the business model of the cooperatives.

Based on these hypotheses, these are some of the main variables that lead to the choice of one legal and governance structure over another by an emergent shared-services platform cooperative. This study has investigated the emergence of a novel form of cooperative enterprise, described herein as a shared-services platform cooperative. These are organizations that build a collaboratively-governed technological infrastructure for shared use among cooperatives in their network, primarily using the resources contributed by those cooperatives. In some instances the organization may be established for this very purpose (e.g. TMF) and in other instances, an organization may evolve into fulfilling such a purpose (e.g. Eva Global Corp.). As indicated by the two cases in this study, shared-services platform cooperatives have one foot in the past and one in the future. They bring together the storied tradition of cooperatives forming federations with peer-to-peer car-, energy- and data-sharing, as well as the long-standing system of (social) franchising with distributed ledger nodes and asymmetric data encryption. This is perhaps unsurprising as, to quote the architectural historian Kazys Varnelis, the construction of these new “infrastructures do not so much supersede old ones as ride on top of them, forming physical and organizational palimpsests”, like telephone lines following railway tracks laid before it (Mattern, 2015, p. 105; Varnelis, 2005). As such, while using new technologies to provide their services, these cooperatives find themselves following organizational pathways charted long before. In doing so, they not only seek to grow together with other value-aligned organizations in a cooperative manner, they strive to address some of society’s most pressing problems: inadequate urban transport facilities, precarious gig work, the loss of personal privacy and autonomy, and environmental harm caused by personal mobility.

In the preceding sections, the origins of two nascent shared-services cooperatives have been explored, with a particular focus on the development of their legal and governance structures. This comparative case study has been conducted to better understand the rationale behind the formation of shared-services platform cooperatives and the factors that determine their choice of structure. Based on a comparative analysis of these cases and an evaluation of the particular legal and governance features of the SCE and the social franchise system, seven hypotheses were developed about this choice, which turn on the capacity of a primary cooperative to internally develop intellectual property, the importance of a global/local brand identity and the need to own and license tangible assets for the success of a primary cooperative’s business model.

Future research could test these hypotheses when studying other emergent shared-services cooperatives, such as Coop Cycle and Up&Go. As the number of such cooperatives grow and more accurate, comparable statistics emerge, there may

5. DISCUSSION

also be an opportunity to conduct cross-case studies to test these hypotheses and arrive at more generalizable findings. While this study has fleshed out what alternatives to the corporate group structure of a platform company could look like, this sets the stage for research concerning the long-term viability of these legal and governance structures in the face of market pressure and the internal demands of its members/franchisees. One such study could be an investigation into the level of trust that members of the primary cooperative have in the leadership of the shared-services platform cooperative. A worthwhile line of inquiry within this study could be the impact of cultural differences on perceptions of trust.

As these cooperatives may become large and complex, there may be discordance between the identity of the cooperative as a community of familiar persons (i.e., a *Gemeinschaft*) and as a society of anonymous, commercially-driven persons (i.e., a *Gesellschaft*), leading to mismatched expectations and internal conflict (Nilsson and Hendrikse, 2011, pp. 346–347). Further research could examine how this balance is struck in this particular context. Finally, while several of the examples mentioned in this study require local, physical interaction between humans, there is also a need to research open and ‘federated’ communication protocols (e.g. social.coop) that facilitate remote, online interaction as they will adopt a distinct set of legal and governance structures.

The background of the page is an abstract composition of three colors: a vibrant red on the left, a bright yellow on the right, and a magenta/pink at the bottom right. These colors are separated by irregular, torn-paper-like edges, creating a layered, collage-like effect.

NOTES

Notes

Meijers PhD Candidate, Company Law Department, Leiden Law School, Leiden University, the Netherlands & Research Fellow at the Institute for the Cooperative Digital Economy (ICDE) at The New School. I wish to thank all the interviewees from The Mobility Factory and Eva for generously sharing their time and knowledge with me.

I also wish to thank Nathan Schneider and Danny Spitzberg for discussions we had on topics addressed in this paper. I especially wish to express my gratitude to Dr. Trebor Scholz for making the writing of, and research for, this paper possible as well as for commenting on an earlier draft. Finally, I wish to show my appreciation to my wife for her constant support. Usual disclaimers apply.

- 1 In a manner similar to Frischmann, I use the term infrastructure capaciously to indicate resources that are “shared means to many ends” (Frischmann, 2014, p. 4).
- 2 <http://www.themobilityfactory.eu/> last accessed 22 August 2020.
- 3 <https://eva.coop/> last accessed 22 August 2020.
- 4 This is what, crucially, distinguishes shared-services platform cooperatives from other platform cooperatives, including cooperatives that build blockchain protocols (e.g. Ark.io) and blockchain dispute resolution protocols (e.g. Kleros.io), as the latter two are primary cooperatives.
- 5 Communication protocols, such as those that enable computers to communicate with each other in a peer-to-peer manner over a network, lend themselves to comparisons with infrastructure given that they are openly accessible on equal and non-discriminatory terms and as their development and use lead to significant social gains (Frischmann, 2014, p. 5).
- 6 In its earliest form in October 1965, when Thomas Marill and Lawrence Roberts connected and retrieved information between two computers situated across the continent United States, a protocol referred to a procedure for “grouping characters into messages, sending them across the link, and checking the message was retransmitted” (Hafner and Lyon, 1998, p. 69). According to Vint Cerf, one of the joint inventors of the TCP/IP protocol with Robert Kahn, the term protocol evolved from diplomatic usage to a common term in computing based on the need for collective agreement among network users (ibid, pp, 145-156).
- 7 This can include older technologies. In recent times, there has been a reinvigorated interest in social networking protocols over platforms, given the capacity of the former to distribute decision-making power about content and expression from platform company employees to end users by allowing them to choose among an array of customizable content moderation interfaces. In other words, returning from the age of Reddit to that of Usenet (i.e. the Network News Transfer Protocol) (Masnick, 2019). It is arguable that this will not only be beneficial to end users but also to existing and emerging platform companies as well, given that it will reduce their role as censors and potentially diminish their risk of intermediary liability, as they will have less authority to decide upon or remove controversial or copyright-infringing content posted by users (Guadamuz, 2014, p. 316).

END NOTES

- 8 This is widely investigated in the organizational studies literature as the “mirroring hypothesis”. A recent literature review of empirical studies on the mirroring hypothesis indicates that mirroring is prevalent – but not universal – and that the hypothesis allows for the causal relationship to work both ways. Organizational structure can affect technological design or vice versa or flow in both directions (Colfer and Baldwin, 2016, p. 714).
- 9 OCLC is governed through a system of democratically-elected Regional Councils, a Global Council and a Board of Trustees. The Councils address matters of policy, product development, customization of services and longterm planning (Hanawalt, 1998, pp. 15, 17).
- 10 With the help of more than 450 IT professionals, it provides “shared technology services, original research and community programs for its membership and the library community at large”. Beyond WorldCat, this also includes WorldShare Management Services, a cloud-based library management application. On OCLC generally, see: <https://www.oclc.org/en/about.html> and OCLC Technology, see: <https://www.oclc.org/en/technology.html> last accessed 28 August 2020. What makes OCLC particularly inspiring for platform cooperatives is the pioneering manner in which it has innovated its organizational structure. For instance, in terms of membership requirements, it permits the contribution of book holdings meta-data as one of the ways a library can become a member. For OCLC’s Membership Criteria, see: <https://www.oclc.org/content/dam/oclc/membership/Membership-Criteria-FY20.pdf> last accessed 28 August 2020.
- 11 <https://holochain.org/> last accessed 28 August 2020.
- 12 https://wiki.guerrillamediainitiative.org/index.php/Main_Page last accessed 28 August 2020.
- 13 They refer to protocols in their widest sense, as a “language, convention, or standard” (Bendell and Slater, 2017, p. 8). To achieve “the next step in decentralization”, Yochai Benkler has also advocated the building of open protocols to be run on open, accessible, high-capacity devices, particular mobile phones (Benkler, 2010).
- 14 While not included as a case in this study in the interests of space, Coop Cycle may also be deemed to be an emergent shared-services platform cooperative, given its role in software development for (e-) bike courier cooperatives and its innovation in software licensing to limit commercial use to worker cooperatives and ‘social and common’ companies, as defined in French, European or national law. <https://wiki.coopcycle.org/home? id=en:license> last accessed 28 August 2020. The Center for Family Life in Sunset Park, and now Up&Go, could be considered as a shared-services platform cooperative in this sense. The former coordinated the development of the Up&Go smartphone application and web interface, which clients can use to hire worker-members of cleaning cooperatives that are part of the platform, and now the development of the software is directed by the Board of the Up&Go cooperative (Yorra, 2019).
- 15 The CEO of Arcade City, Christopher David, writes: “We’ve believed since the beginning that a decentralized Uber should eventually use a blockchain like Ethereum. But our focus has always been on mainstream usability now and solving the pain points of non-technical users today, not a theoretical future where blockchain usability and scalability issues are solved. (Three years later, it’s still uncertain when those issues will be solved — and we would be stupid to wait to expand our service until they are.)” (David, 2019).
- 16 In the case of Eva, driver-user members get paid for the trips they make and can receive a patronage rebate if it is agreed. In TMF, its legal status also allows the member-cooperatives to receive a patron-

- age rebate if it is agreed.
- 17 The city council of Barcelona, for example, has been active in giving financial and practical support to “collaborative economy platforms” (Fuster Morell and Espelt, 2018, pp. 8–9).
- 18 <https://ioo.coop/> last accessed 15 December 2019.
- 19 In the directory, a platform co-op is understood to be an ICA-compliant co-op that manages an online platform, sharing ownership and governance over it, a co-op run platform is an ICA-compliant co-op that manages and primarily does business through an online platform, a shared platform is an enterprise that shares some meaningful ownership or governance over an online platform without being a cooperative and a supporter is a project that lends support to the platform co-op ecosystem. <https://ioo.coop/standards/> last accessed 28 August 2020. It should be noted that there is some variance in how platform cooperatives are defined in the literature but the International Co-operative Alliance is now working towards a more uniformly accepted definition. Another, higher figure was recently presented by the Director of Institute for the Cooperative Digital Economy, Dr. Trebor Scholz, who estimates that there are roughly 500 initiatives in the platform co-op ecosystem [personal communication with author], which includes projects that are affiliated with platform cooperativism but are not strictly platform cooperatives (Scholz, 2019).
- 20 Representatives of both TMF and Eva delivered presentations at the “Who Owns the World?: The State of Platform Cooperativism”, 7-9 November 2019, The New School, New York City.
- 21 Registered in the Official Gazette of Belgium with the number 15304834 on 18.03.2015.
- 22 A living lab is a venue at which users can contribute to the development of a software application by sharing their experiences of a product and their needs as a user with developer-entrepreneurs. These ‘open innovation’ systems are typically located at universities or municipality offices.
- 23 For supporter-members, the minimum subscription period is 4 years. Should such a Class B member resign, withdraw their share or be excluded, they are entitled to the current book value of their shares in the year their membership ends. However, to preserve the cooperative nature of this business, this is capped at the nominal value of their share plus an additional percentage set by Belgium’s National Council for Cooperatives. This is currently 6%, see Art 1, § 1.5° of the Royal Decree of 8 January 1962 and (FOD Economie, 2018).
- 24 The statutes refer to art. 382bis of the Belgian Companies Code but following its repeal and replacement by the new Code of Companies and Associations, electronic participation in meetings is permitted under art. 6:75. It is important to note that remote participation in General Assemblies is not possible in all jurisdictions. For instance, in Bangladesh, members of a cooperative are required to be physically present in person when casting a vote (e.g. for board positions) and are prohibited from appointing proxies, see section 36(1), Co-operative Societies Act, 2001 [Bangladesh] (as amended) and Rule 88, Co-operative Societies Rules, 2004 [Bangladesh]. In Quebec, it is possible to virtually participate in meetings, however it is prohibited to appoint proxies, see section 4(2), Cooperatives Act, 1982 (c. C-67.2).
- 25 In other words, when Partago only had its initial 5 founder-members, the CEO had a deciding vote as he held all the Class B shares.
- 26 Car Models: Renault Zoé City Car, Delivery Van Nissan eNV200, Minibus Nissan eNV200. The tariff is the

- same for all car models.
- 27 The need to share more consumer data concerning the delivery of electric vehicle charging services has also been emphasized in the United States (Asensio et al., 2020).
 - 28 It is worth noting that one of the deliverables of the WiseGRID project states that, “[o]verall, the EV [electric vehicle] without the battery has the same value as the battery of the EV” (insertions mine) (Zambrano et al., 2017, p. 18).
 - 29 Reichel points out that Som Mobilitat originally wanted a fairly loose association between themselves and Partago to develop the software as an open source project. It was at Partago’s insistence that this collaboration was formalized as a cooperative (LR Interview, 06.08.2020, at [42:30-43:15]).
 - 30 The 2018 and 2017 Annual Reports indicate that Partago had an operational loss in both years, largely due to the expenditure involved in acquiring new cars and the cost of charging stations. The reports are available at <https://www.partago.be/downloads.html> last accessed 15 December 2019 [in Flemish Dutch].
 - 31 National Identification Number : F66835125, founded on 28 July 2016.
 - 32 Car Models: Renault Zoé 40 kWh, Renault Zoé 22 kWh, Renault Kangoo 22 kWh.
 - 33 Generalitat de Catalunya Department d’Empresa i Ocupació, Model abreujat per a la presentació dels comptes anuals (2017), <https://drive.google.com/file/d/18fhEQkFEB0MUmjAUc2y0RSrjL2zsrotd/view>, last accessed 31 August 2020; Som Mobilitat SCCL Memòria abreujada 2017, p. 2, <https://drive.google.com/file/d/1Tc7n1pwugufPvznOyle-YgdTOFE-6vx/view>, last accessed 31 August 2020 [in Catalan]. Two of the major differences between Som Mobilitat and Partago, that go some way towards explaining the difference in their losses, is their respective expenditure on allowances & wages and payment for cars and charging ports.
 - 34 Council Regulation (EC) No. 1435/2003 of 22 July 2003 on the Statute for a European Cooperative Society (SCE), OJ L 207, 18.08.2003. This has been supplemented with a Directive, Council Directive 2003/72/EC of 22 July 2003 supplementing the Statute for a European Cooperative Society with regard to the involvement of employees, OJ L 207, 18.08.2003. While the Directive is relevant for cooperative governance, given that it provides rules for employee representation in the governance of the SCE on certain conditions, the information, consultation and participation rights of employees do not appear to have been formalized in TMF. This may be due to the fact that the member cooperatives have very few employees and that Partago and Som Mobilitat, the two largest members of TMF in terms of Class A shares, are based in jurisdictions where there is no legal requirement for board-level employee representation.
 - 35 Lucie Evers representing Partago, Dirk Vansintjan representing REScoop.eu, Jan Janse de Kock representing Cooperatieauto, Lukas Alain Reichel representing Som Mobilitat, Kay Voßhenrich representing Energiegewinner and Jeroen Pool representing Hilversumse Energie Transitie. After Evers resigned as Chairman and interim CEO, Reichel stepped in as interim CEO.
 - 36 <https://www.themobilityfactory.eu/software.html> last accessed 30 August 2020.
 - 37 The most glaring example of this is Juno, a company that committed to giving drivers restricted stock units as an incentive to switch from competitors but then proceeded to cancel the RSU plan when it was acquired by Gett. This led to a class of drivers filing a lawsuit alleging that Juno had acted

- unlawfully by misrepresenting and falsely advertising that drivers would acquire equity shares, had engaged in securities fraud and its CEO had breached his fiduciary duty to shareholders by engaging in self-dealing and mismanagement. See *Mohammed Razzak and others v. Juno USA, LP and others*, US District Court SDNY, 9 June 2017.
- 38 On the face of it, EOS appears to be an alternative blockchain protocol comparable to, or an evolution of, Ethereum. According to coinmarketcap.com, the EOS token is the eleventh-largest cryptocurrency (as of August 2020). However, it has been argued that instead of a public blockchain, EOS more closely resembles “a homogenous distributed database network that allows different user accounts to communicate and interact” through the network (Xu et al., 2018, p. 4). The main distinction appears to be the need for trust in third parties for validating and recording transactions onto an underlying database, instead of primarily relying on validation through cryptographic proof, such as observing changes to a Patricia Merkle tree data structure as in the case of Ethereum. EOS used a delegated proof-of-stake consensus protocol, which means that every wallet with a positive balance that is part of the EOS network can elect block-producers who are then authorized to validate transactions and create blocks. The 21 block-producers with the most votes take turns to produce blocks every three seconds, with those who repeatedly fail to produce blocks being voted out of the schedule (Bach et al., 2018, p. 1547; Dhillon et al., 2017, pp. 155–157). This contrasts to the more computationally-intense proof-of-work consensus protocol in which miners compete to produce blocks, which arguably relies less on personal trust and more on confidence in the system (De Filippi et al., 2020). While EOS can notionally arrive at consensus more quickly, the extensive and subjective powers of block-producers has prompted criticism as they have the capacity to censor (malicious) actors and act in a collusive, plutocratic fashion; undermining the censorship resistance and decentralized qualities aspired to by many promoters of blockchain technology (Xu et al., 2018, pp. 21–22). Recently, smaller block producers have begun leaving the protocol due to diminishing rewards for participating in the network and the concentration of power among larger block producers—mainly in Mainland China—prompting fear of potential state intervention (Dale, 2019). Supporters of EOS have sought to cast doubt on the credibility of Xu et al.’s research, based on alleged conflicts of interest, incompleteness and lack of expertise regarding EOS’s codebase. This has also raised interesting ontological questions about what a blockchain.
- 39 It should be noted that at the time of publication, Eva is at the brink of operating in New York City.
- 40 This is in stark contrast to companies like Uber where, in at least some cities, most drivers never meet each other (Attoh et al., 2019, p. 1015), much less the management of the company. The importance of drivers feeling that they can speak freely should not be underestimated, given that avoiding initiating conversations with passengers is often seen as being essential for a high rating on the Uber app (Jamil, 2020, p. 12).
- 41 Quebec Business Registry Number: 1174418823.
- 42 Solidarity cooperatives were introduced to Quebec in 1997 through an amendment of Quebec’s Co-operative Act to facilitate the creation of multi-stakeholder cooperatives, with members potentially comprising the users of a cooperative’s service, its workers as well as anyone “who has an economic or social interest in attaining the objective of the cooperative” (i.e. supporter members) (section 226.1, Cooperatives Act, 1982; Girard and Langlois, 2009, p. 230). Such a cooperative strives to achieve objectives beyond financial returns, with solidarity cooperatives being introduced to (i) achieve local development, (ii) redress the closing of villages, (iii) construct daycare centers, (iv) reinsert persons into the job market and (v) provide home-care services (Girard, 2004, p. 167). In short, the purpose of such

cooperatives is to re-embed economic relations in their local community. Each of the member-groups can have different capitalization rules, with it being possible to issue participating preferential shares to supporter members. Each member-group can elect at least one representative to the board, with supporter members being capped at a third of the total board. While user members can receive patronage returns based on their pro rata use and worker members receive returns on the basis of their hours worked, supporter members are prohibited from receiving patronage returns (ibid, p. 170).

- 43 Half of the total amount allocated for rebates will be for driver-user members, 40% for passenger-user members and 10% for worker-members (§7.4, Eva Bylaws). Supporter members cannot receive patronage returns. The returns to members do not have to be in cash but can be in preferred shares in the cooperative or, in the case of passenger-user members, credit towards subsequent journeys with Eva (section 152, Cooperatives Act, 1982).
- 44 As of December 2019, the cooperative in Montreal has 8 block producers and many more non-producing nodes that have joined out of curiosity (Jones, 2019). The EVA protocol went past 90 million blocks in July 2020.
- 45 In short, their ideal is that the user will not notice that the information from the steps in the ride-hailing transaction are being included in a block. There have been widely contrasting claims regarding the number of transactions per second (tps) EOS can handle, from millions to 10,000 according to tests seen by Raphael Gaudreault (Jones, 2019) to a mere 50 (Xu et al., 2018, p. 23). This is in comparison to the 3.04 TPS of the Bitcoin blockchain (blockchain.com) and 12.4 TPS of the Ethereum blockchain (etherscan.io) as of 30 August 2020.
- 46 Rosenblat discusses at length the mental and emotional toll involved in striving to secure and maintain a high rating on the Uber application. As a high rating is essential for continued use of the application and a steady stream of passengers, a driver's rating is a constant cause for concern and even affects their feeling of self-worth (Rosenblat, 2018, pp. 150–155). This is reaffirmed by Jamil's ethnographic research of Uber drivers in Montreal, describing the rating system as having a (self-) disciplining effect on the drivers (Jamil, 2020, p. 11).
- 47 As Brunton explains, a hash is a “function that takes data of any size and returns data of fixed size, usually much shorter, which corresponds to the original data. Any change to the original will produce a different hash... you cannot figure out the original data from the hash of the data. It is—at least in theory, if not always in practice—not reversible. The hash of the thing tells you nothing about the thing, except that the hash corresponds to it, and to it alone” (Brunton, 2019, p. 104).
- 48 The directors are Raphael Gaudreault (Co-President), Dardan Isufi (Co-President), Laurence Audette-Lagueux (Vice President), Philippe Alengry (Treasurer) and Amokrane Mariche (Secretary). Following a recent General Assembly, a driver-user member representative will soon be added to the board.
- 49 If there is a surplus, §7.3 of Eva's Bylaws provides that at least 40% of it should be kept in the general reserve of the cooperative. This is notably higher than the minimum reserve requirement of 10% mentioned in section 146, Cooperatives Act, 1982.
- 50 A franchise arrangement involves the owner of a business service format (the franchisor) entering into a contract without another party at arm's length (the franchisee) that permits the latter to use the business service format of the franchisor to sell a product or service in exchange for an upfront fee, ongoing royalties and a commitment to strictly maintain standards set by the franchisor (Flad-

- moe-Lindquist and Jacque, 1995, p. 1238). The business service format typically includes the trademark and other intellectual property of the franchisor, as well as the franchisor's trade secrets. As a relational contract (Leblebici and Shalley, 1996), a franchise agreement requires an ongoing process of knowledge transfer from the franchisor to the franchisee. A typical franchise contract therefore typically includes clauses on the rights and duties of the franchisor and the franchisee concerning the commencement, termination and dispute resolution of the franchise, as well as the powers and liabilities of both parties during the operation of the franchise.
- 51 Cooperation among cooperatives is the 6th ICA principle of the cooperative identity, but there is debate among legal scholars about it being obligatory for cooperatives to cooperate, given its tension with other ICA principles such as autonomy/independence and democratic control (Henrý, 2017, pp. 121–122). Henrý instead argues that as the seven ICA principles have been included in ILO Recommendation No. 193 of 2002 on the promotion of cooperatives, its democratic legitimacy and repeated behavior of states arguably make the principles legally binding on States. To ensure the harmonious coexistence of the principles, cooperation among cooperatives should only be incentivized, not mandated (*ibid*, p. 124). While cooperation among cooperatives has not been mandatorily imposed on cooperatives in Belgium, they do have the liberty to do so (Tilquin and Bernaerts, 2020, p. 13). In Canada, cooperation among cooperative is not mandatorily required at the federal level (Lowery, 2020, p. 13), but it is fundamental to cooperative action under section 4(6), Cooperatives Act, 1982. Economic cooperation among cooperatives in the manner adopted by TMF is also one of the principles under the Principles of European Cooperative Law (principle 5.2(3)).
- 52 While it is not possible to delve into this topic here, the freedom of establishment (§49, Treaty on the Functioning of the European Union) also protects the right of cooperatives registered under the law of an EU/EEA State—as a company or firm under §54, TFEU—to engage in cross-border economic activity. Moreover, the case law on the freedom of establishment enables cooperatives to transfer their registered office to another EU/EEA State as well as ‘convert’ into a cooperative legal form of another State. See Case C-106/16 Polbud — Wykonawstwo sp. z o.o., in liquidation, ECLI:EU:C:2017:804 and Case C-378/10 VALE Építési kft ECLI:EU:C:2012:440 respectively.
- 53 Interestingly, in recent weeks, discussion has arisen about Uber and Lyft granting franchises to their brands and technology to commercial fleets in California, should they have to exit the state. This threat has been issued by Uber and Lyft due to a decision by Judge Ethan Schulman of the San Francisco Superior Court granting an injunction against the two companies to compel them to comply with Californian employment law, which, failing a successful appeal, would effectively requires them to classify their drivers as employees. In a recent essay, Veena Dubal warns of the risk that such a franchise system can pose to drivers if greater legal responsibilities and risk is thrust onto them, by drawing lessons from the transition of FedEx to a “franchise-like model” (Dubal, 2020). In the FedEx case, the franchise arrangement required franchisee-drivers (Independent Service Providers) to hire their own drivers and purchase their own trucks to cover large areas, squeezing both the franchisee and their own drivers (Dubal, 2017). It remains to be seen whether a social franchisee that is also a (platform) cooperative confronts similar challenges, given their focus on objectives other than profit and the differences in status between being an employee and a worker-member of a cooperative. In the early experience with Eva, it appears that being a member prompts a change in mindset. In the words of one Eva driver-user member, in Uber, “everybody tries to make more money, as much as possible. As drivers, we were very individualistic...Whereas with Eva and on my side, we want that every driver has enough rides to live properly, to get some money and to have some consideration for the work done” (RA Interview, 28.07.2020, at [24:45-25:30]).



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